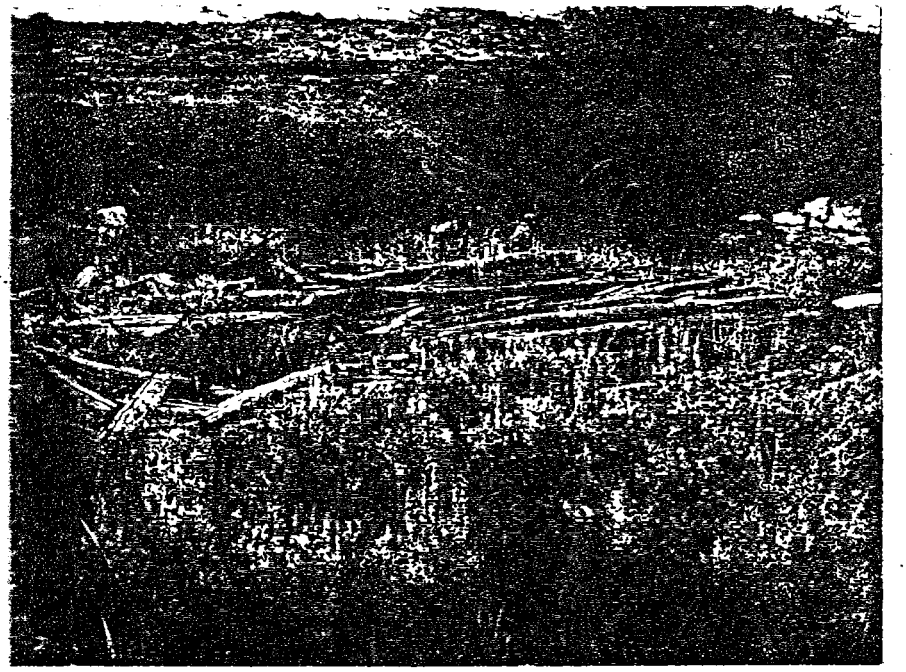
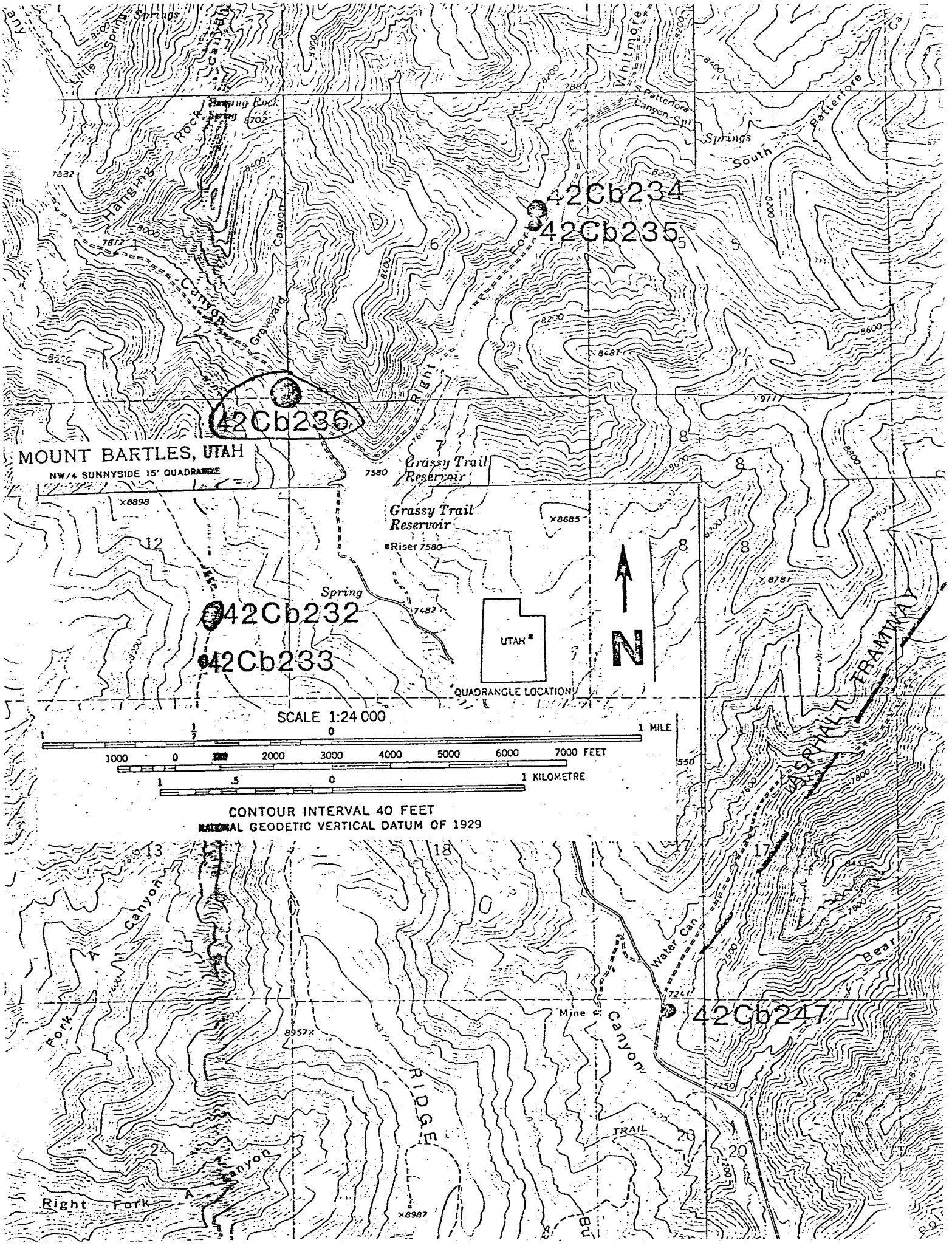


Collapse at 42Cb236.

Standing walls at 42Cb236.

INCORPORATED
EFFECTIVE:
AUG 1 6 1995
UTAH DIVISION OIL, GAS AND MINING



MOUNT BARTLES, UTAH
NW/4 SUNNYSIDE 15' QUADRANGLE
42Cb234
42Cb235
42Cb236
42Cb232
42Cb233
42Cb247
Grassy Trail Reservoir
Riser 7580
Spring
Hanging Rock Spring
Little Spring Springs
Whitmore
S. Patterfore Canyon Spr
South Patterfore
Springs
Graveyard Canyon
Right Fork
Canyon
Water Can
Mine
Canyon
RIDGE
TRAIL
Bear
ASPHALT TRAMWAY
Right Fork A Canyon
UTAH
QUADRANGLE LOCATION
N
SCALE 1:24 000
1 MILE
7000 FEET
1 KILOMETRE
CONTOUR INTERVAL 40 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

UTAH ANTIQUITIES SITE FORM
developed by cooperative agreement by:
Bureau of Land Management
Division of State History
University of Utah Archeological Center

1. Site No. [I/1-10] 42Cb237

2. County Carbon
3. Temp. No. K-7

4. Class: ___ Prehistoric X Historic ___ Paleontologic
5. Cultural Site Type (interpreted function): Cattle camp/deer camp
6. Paleontological Site Type: ___ Invertebrate; ___ Vertebrate; ___ Flora
7. Elevation [I/11-15] 8580 ft. X .3048 = 2615 m.
elevation source: Contour
8. UTM Grid: [I/16-30] zone 12 ; 556650 m E; 4376370 m N
9. [II/1-16] NE of SW of NW of Section 10 T. 13 S , R. 14E
10. Map Reference: Patmos Head, UT Series: 7.5 Date: 1972
11. Aerial Photo Data:

12. Site Location: On ridge below Patmos Ridge, overlooks head of Water Canyon. Hike up North Fork of Horse Canyon, or up Water Canyon on west off of Patmos Ridge. Its a long way no matter how its done.

13. Land Owner [II/17-18]: Private, Kaiser Steel
BLM District/Forest [II/19]:
14. Site Name/Previous Designations: None
15. Description of Site: Light scatter of porcelain ceramics, tin cans, and initials on a tree. Sets on the edge of a heavy mahogany/aspen stand. Several large boulders at the site. Initials on the tree are too old to read clearly. Overlooks a large sage flat to north. Lots of cattle droppings.

16. Artifacts: Artifacts should be described/drawn on a continuation sheet and their locations plotted on the site map.

CLASS	QUANTITY
Debitage [II/30]	
Bifaces [III/1-9]	
Scrapers [III/1-9]	
Utilized Flakes	

CLASS	TYPE	QUANTITY
Ceramics [III/10-21]	porcelain	2
Proj Pnt [III/1-9]		
Gnd Stn [II/22-29]		
Glass [II/22-29]		
Metal [II/22-29]	cans	2
Nails [II/22-29]		
Cans [II/22-29]		
Wood [II/22-29]		
Other [II/22-29]		

Description: Blue decorated ceramics, no manufacturer's marks. Cans badly eroded.

17. Non-Structural Features: (describe and locate on site map) [III/22-27]

_hearth/firepit(HE)	_rubble mound(RM)	_earthen mound(EM)	_trail/road(TR)
_midden(MD)	_stone circle(SC)	_burial(BU)	_RR grade(RG)
_depression(DE)	_rock alignment(RA)	_pictograph(PI)	_tram way/road(TW)
_water control(WC)	_mine tailings(MT)	_petroglyph(PE)	_other(OT)

Description:

18. Structural Features: (describe and locate on site map) [III/28-IV/6]

CLASS	MATERIAL	QUANTITY	CLASS	MATERIAL	QUANTITY
Single rm			Tower		
Multiple rm			Cairn		
Granary			Corral		
Cist	NONE		Dugout		
Pithouse			Kiln		
Kiva			Monument		
Well			Mine		

Description:

19. Cultural Affiliation [IV/7-14]: Historic
How Determined? Ceramics, tin cans
20. Site Dimensions : 10 m X 10 m; Area [IV/17-21]: ____ sq
21. Were surface artifacts collected? __Yes; X No; [IV/22] If yes, attach a continuation sheet describing sampling method used.
22. Estimated depth of fill [IV/23] : None
Subsurface test? __Yes; X No (Include location of test on site map)
Description:
23. Site Condition [IV/25] : __Excellent; __Good; __Fair; __Poor
Agent of Impact: Erosion, cattle
24. Nat.Register Potential [V/1]: __Significant(C); X Non-Significant(D)
Justification: No depth, structures, etc.

25. Research Potential: None
26. Recommended Mitigation: None
27. Direction/Distance to Permanent Water [V/5-10] : West / 2 km m
Type/Name of Water Source [V/11] : Grassy Trail Creek
Distance to nearest other Water Source [V/2-4]: Unknown
Type of other water source:
Distance to Cultivatable Soil [V/12-14] :
28. Topographic Location (check one under each heading) [V/15-18]

PRIMARY LANDFORM
- _mountain spine(A)
- _hill/butte(B)
- _tableland/mesa(C)
- X ridge(D)
- _valley(E)
- _plain(F)
- _canyon(G)

POSITION ON LANDFORM
- X top/crest/peak(A)
- _edge(B)
- _slope(C)
- _toe/foot/bottom(D)
- _saddle/pass(E)
- _bench/ledge(F)
- _rimrock(G)
- _interior(H)

DEPOSITIONAL ENVIRONMENT
- _fan(A)
- _talus(B)
- _dune(C)
- _stream terrace(D)
- _playa(E)
- shore feature
  - _extinct lake(F)
  - _extant lake(G)
- _alluvial plain(H)
- X colluvium(I)
- _moraine(J)
- _flood plain(K)
- _marsh(L)
- _landslide/slump(M)
- _delta(N)
- _island(O)
- _cliff(P)
- _outcrop(Q)
- _stream bed(R)

SECONDARY POSITION
- X top/crest/ridge(A)
- _edge(B)
- _slope(C)
- _toe/foot(D)
- _cutbank(E)
- _detached monolith(F)
- _interior(G)
- _step(H)
- _riser(I)
- _port.geo.feature(J)
- _spring mound/bog(K)
- _cave(L)
- _alcove/shelter(M)
- _patterned ground(N)

Description: Edge of sage flat on top of a large ridge line above Water Canyon. Patmos Ridge rises 1600 feet to the east.

29. Degree/Aspect of slope [V/19-23] : 2 East
30. Vegetation COMMUNITY and association [V/24-25]:

_ALPINE GRASSLAND(AA)
_SPRUCE FIR(BZ)
_krummholz(BA)
_white fir-spruce(BB)
X ASPEN DOUGLAS FIR(CZ)
_limber pine(CA)
_douglas fir(CB)
_lodgepole pine(CC)
_bristlecone pine(CD)
_aspen(CE)
_streamside(CD)
_meadow grassland(CG)

_YELLOW PINE-OAK(DZ)
_ponderosa pine(DA)
_oakbrush(DB)
_mountain brush(DC)
_maple(DD)
_streamside(DE)

_PLAINS/PRAIRIE(EZ)
_grasslands(EA)
_pinyon-juniper(EB)
_streamside(EC)

_COLD DESERT SHRUB(FZ)
_sagebrush(FA)
_small sagebrush(FB)
_little rabbitbrsh(FC)
_shadscale(FD)
_horsebrush(FE)
_winter-fat(FF)
_hop-sage/blkbrsh(FG)
_bud sagebrush(FH)
_mat saltbrush(FI)
_gray molly(FJ)
_streamside(FK)

_SALT DESERT SHRUB(GZ)
_greasewood(GA)
_grswood-shadscl(GB)
_seepweed(GC)
_picklewd/samphire(GD)
_saltgrass(GE)
_alkali sacaton(GF)
_rabbitbrush(GG)

_WARM DESERT SHR
_desert saltbrush
_creosote bush(HB)
_creosote/bursag
_joshua tree(HD)
_MARSH COMMUNITY

_ALKALI FLATS/MUD FLATS/DRY LAKE/ WASTELAND(KZ)

_CULTIVATED LAND(JZ)

(Check COMMUNITY only if association cannot be determined)

Description: Aspen, Douglas fir, mahogany, sage, grasses, lupine.

31. Next nearest plant association/distance:
32. Photograph Numbers [V/26] : AN-81-1-16; AN-81-2-16.
33. Recorded by: Asa S. Nielson
Survey Org. [V/27-28]: Cultural Services, A.S. Date: January 23, 1981
Assisting Crew Members: Jack Oviatt, Jim Kirkman

34. Sponsoring Agency: Kaiser Steel Contract No.

SITE NO.

SITE NO. _____

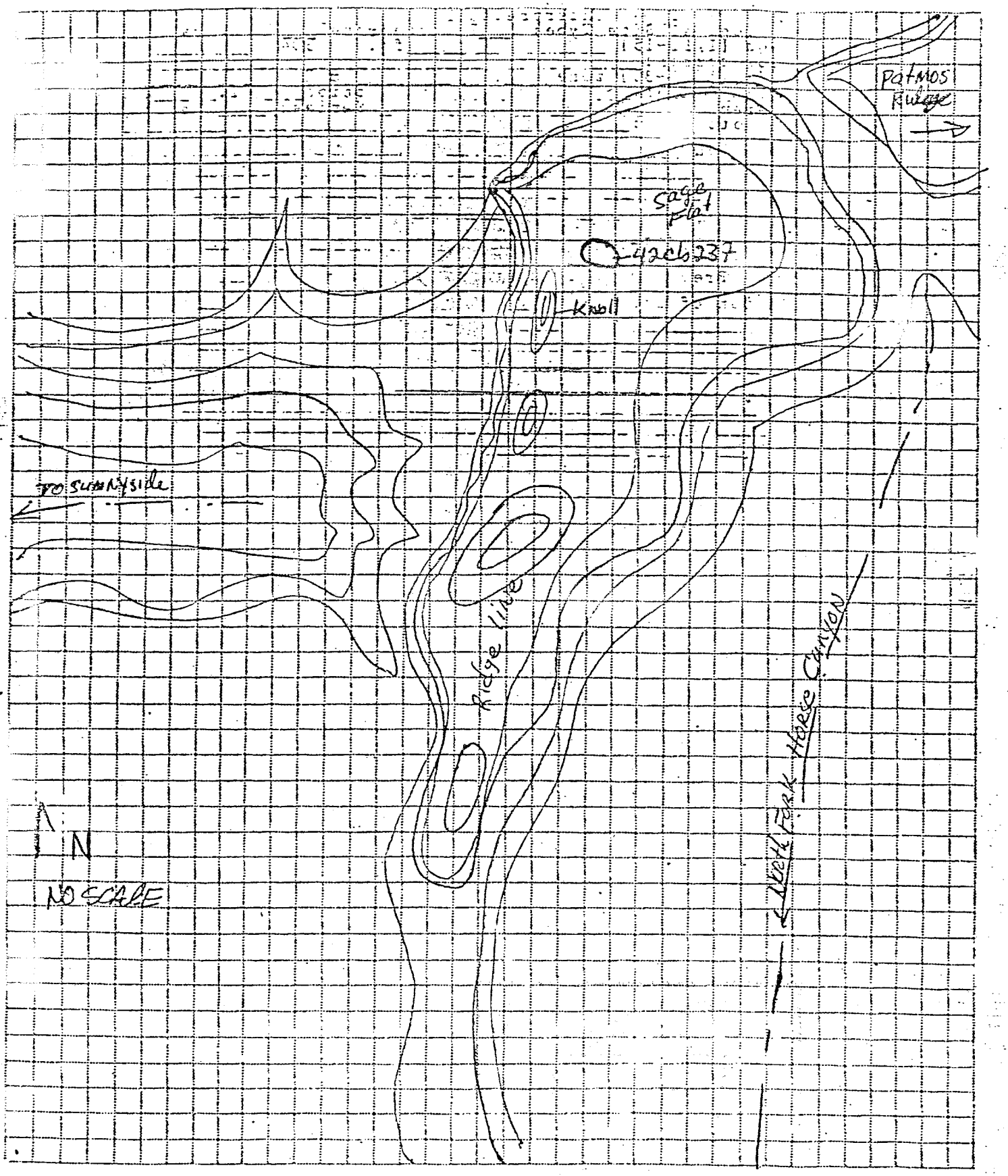
Site 42Cb237
General Site Area Looking
East Toward Patmos Ridge.

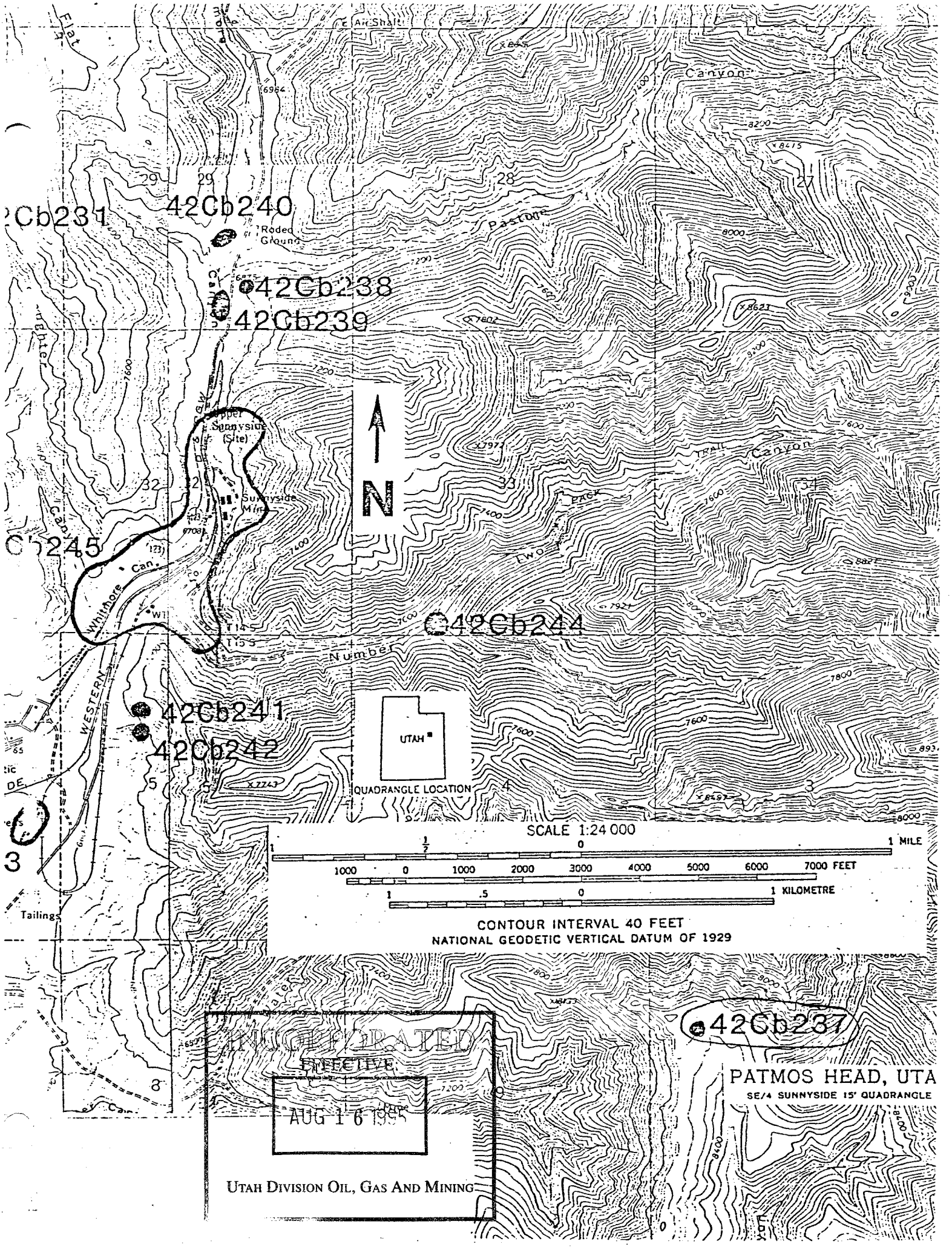
35. Encoding Form: (all entries are right justified)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
I																															
II																															
III																															
IV																															
V																															
VI																															

Form must be accompanied by a site map; photocopy of U.S.G.S. topo map with T., R., scale, and quad name; photographs of the site; and artifact sketches (if applicable).

SITE NO. 42Ch237





INCORPORATED
EFFECTIVE
AUG 16 1995
UTAH DIVISION OIL, GAS AND MINING

UTAH ANTIQUITIES SITE FORM
developed by cooperative agreement by:
Bureau of Land Management
Division of State History
University of Utah Archeological Center

1. Site No. [I/1-10] 42Cb238

2. County Carbon
3. Temp. No. K-8

4. Class: X Prehistoric X Historic Paleontologic
5. Cultural Site Type (interpreted function): Rock art
6. Paleontological Site Type: Invertebrate; Vertebrate; Flora
7. Elevation [I/11-15] 6870 ft. X.3048 = 2093 m.
elevation source: Contour
8. UTM Grid: [I/16-30] zone 12; 554090 m E; 4380420 m N
9. [II/1-16] NW of SW of SE of Section 29 T. 14S, R. 14S
10. Map Reference: Patmos Head, Utah Series: 7.5 Date: 1972
11. Aerial Photo Data:
12. Site Location: Just 150 m. south of Whitmore Ca. rodeo grounds. About 2/3 mile north of Kaiser Steel Coal Offices on paved road in Whitmore Ca. (U-123).

13. Land Owner [II/17-18]: Private, Kaiser Steel Corp.
BLM District/Forest [II/19]:
14. Site Name/Previous Designations: None
15. Description of Site: A small petroglyph and historic scatter on a rock outcrop Glyph occupies about 75 cm^2; the historic material 10 X 15 m. area which extends across U-123. Glyph includes wavy lines (2 sets), a set of horizontal lines.

16. Artifacts: Artifacts should be described/drawn on a continuation sheet and their locations plotted on the site map.

CLASS	QUANTITY
Debitage [II/30]	
Bifaces [III/1-9]	
Scrapers [III/1-9]	
Utilized Flakes	

CLASS	TYPE	QUANTITY
Ceramics [III/10-21]		
Proj Pnt [III/1-9]		
Gnd Stn [II/22-29]		
Glass [II/22-29]	Several	100+
Metal [II/22-29]		
Nails [II/22-29]		
Cans [II/22-29]		
Wood [II/22-29]		
Other [II/22-29]		

Description: Purple, green, yellow, brown, light blue, clear glass of numerous bottles.

17. Non-Structural Features: (describe and locate on site map) [III/22-27]

_hearth/firepit(HE)	_rubble mound(RM)	_earthen mound(EM)	_trail/road(TR)
_midden(MD)	_stone circle(SC)	_burial(BU)	_RR grade(RG)
_depression(DE)	_rock alignment(RA)	_pictograph(PI)	_tram way/road(TW)
_water control(WC)	_mine tailings(MT)	X petroglyph(PE)	_other(OT)

Description: Wavy lines (10 cm long); horizontal > 8 cm; one large wave 6 cm long.

18. Structural Features: (describe and locate on site map) [III/28-IV/6]

CLASS	MATERIAL	QUANTITY	CLASS	MATERIAL	QUANTITY
Single rm			Tower		
Multiple rm			Cairn		
Granary	None		Corral		
Cist			Dugout		
Pithouse			Kiln		
Kiva			Monument		
Well			Mine		

Description:

19. Cultural Affiliation [IV/7-14]: Prehistoric, historic
How Determined? Historic via glass
20. Site Dimensions : 10 m X 15 m; Area [IV/17-21]; _____ sq
21. Were surface artifacts collected? __Yes; X No; [IV/22] If yes, attach a continuation sheet describing sampling method used.
22. Estimated depth of fill [IV/23] : Unknown
Subsurface test? __Yes; X No (Include location of test on site map)
Description: _____
23. Site Condition [IV/25] : __Excellent; __Good; __Fair; X Poor
Agent of Impact: Erosion, road cut
24. Nat.Register Potential[V/1]: __Significant(C); X Non-Significant(D)
Justification: Glyph has no other prehistoric association. Historic trash cut by a road.

25. Research Potential: None.
26. Recommended Mitigation: None
27. Direction/Distance to Permanent Water [V/5-10] : West / 7.5 m
Type/Name of Water Source [V/11] : Grassy Trail Creek
Distance to nearest other Water Source [V/2-4]: Unknown
Type of other water source: _____
Distance to Cultivatable Soil [V/12-14] : 10 m
28. Topographic Location (check one under each heading) [V/15-18]

PRIMARY LANDFORM	POSITION ON LANDFORM	DEPOSITIONAL ENVIRONMENT		SECONDARY POSITION
X mountain spine(A)	_top/crest/peak(A)	_fan(A)	_marsh(L)	_top/crest/ridge(A)
_hill/butte(B)	_edge(B)	_talus(B)	_landslide/slump(M)	_edge(B)
_tableland/mesa(C)	_slope(C)	_dune(C)	_delta(N)	_slope(C)
_ridge(D)	X toe/foot/bottom(D)	_stream terrace(D)	_island(O)	X toe/foot(D)
_valley(E)	_saddle/pass(E)	_playa(E)	_cliff(P)	_cutbank(E)
_plain(F)	_bench/ledge(F)	shore feature	X outcrop(Q)	_detached monolith(F)
_canyon(G)	_rimrock(G)	_extinct lake(F)	_stream bed(R)	_interior(G)
	_interior(H)	_extant lake(G)		_step(H)
		_alluvial plain(H)		_riser(I)
		_coluvium(I)		_port.geo.feature(J)
		_moraine(J)		_spring mound/bog(K)
		_flood plain(K)		_cave(L)
				_alcove/shelter(M)
				_patterned ground

Description: Occupies the end of a large rock outcrop. Glyph about 10 m. up from base on west facing edge.

29. Degree/Aspect of slope [V/19-23] : 90-0
30. Vegetation COMMUNITY and association [V/24-25]:

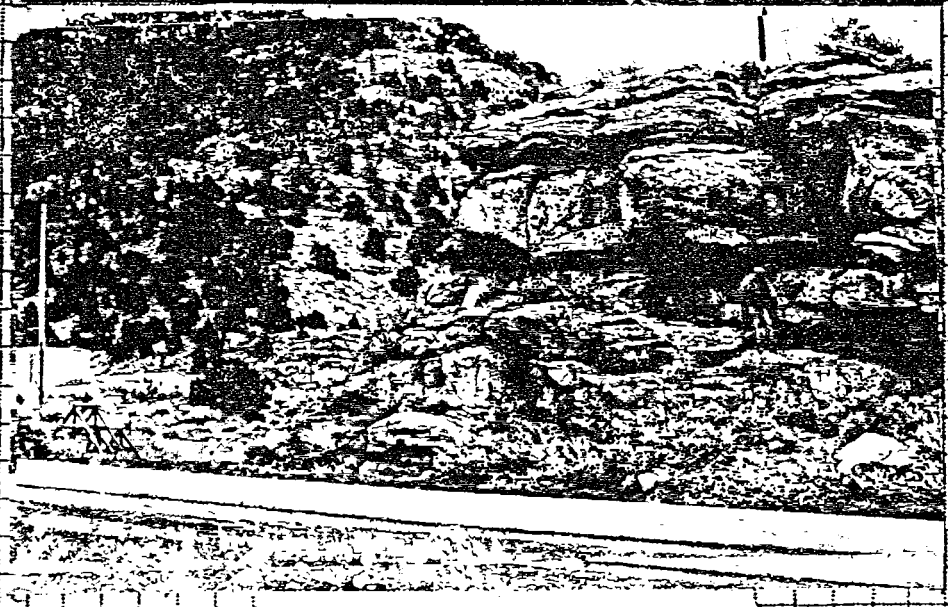
_ALPINE GRASSLAND(AA)	_YELLOW PINE-OAK(DZ)	_COLD DESERT SHRUB(FZ)	_SALT DESERT SHRUB(GZ)	_WARM DESERT SHRUB(HZ)
	_ponderosa pine(DA)	_sagebrush(FA)	_greasewood(GA)	_desert saltbrush(HA)
_SPRUCE FIR(BZ)	_oakbrush(DB)	_small sagebrush(FB)	_grswood-shadscl(GB)	_creosote bush(HB)
_krumholz(BA)	_mountain brush(DC)	_little rabbitbrsh(FC)	_seepweed(GC)	_creosote/bursage(HC)
_white fir-spruce(BB)	_maple(DD)	_shadscale(FD)	_picklewd/samphire(GD)	_joshua tree(HD)
_ASPEN DOUGLAS FIR(CZ)	X streamside(DE)	_horsebrush(FE)	_saltgrass(GE)	_MARSH COMMUNITY(I)
_limber pine(CA)		_winter-fat(FF)	_alkali sacaton(GF)	
_douglas fir(CB)		_hop-sage/blkbrsh(FG)	_rabbitbrush(GG)	_ALKALI FLATS/MUD FLATS/DRY LAKE/ WASTELAND(KZ)
_lodgepole pine(CC)	_PLAINS/PRAIRIE(EZ)	_bud sagebrush(FH)		
_bristlecone pine(CD)	_grasslands(EA)	_mat saltbrush(FI)		
_aspen(CE)	_pinyon-juniper(EB)	_gray molly(FJ)		_CULTIVATED LAND(JZ)
_streamside(CD)	_streamside(EC)	_streamside(FK)		
_meadow grassland(CG)				

(Check COMMUNITY only if association cannot be determined)

Description: Sage, grass, juniper, service berry, rabbit brush, pinyon.

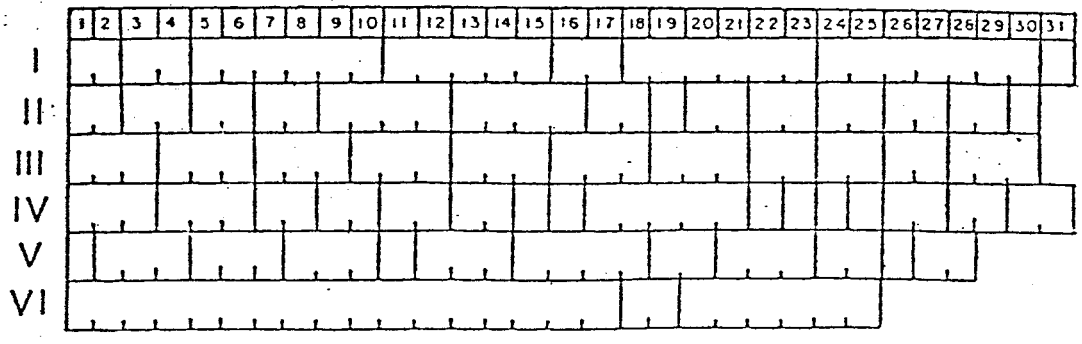
31. Next nearest plant association/distance: E B 50 m
32. Photograph Numbers [V/26] : AN-81-3.2-3; AN-81-4.2-3.
33. Recorded by: Asa S. Nielson
Survey Org. [V/27-28]: Cultural Services, A.S. Date: Jan. 28, 1981
Assisting Crew Members: Jim Kirkman, Jack Oviatt

34. Kaiser Steel Corp. Contract No.



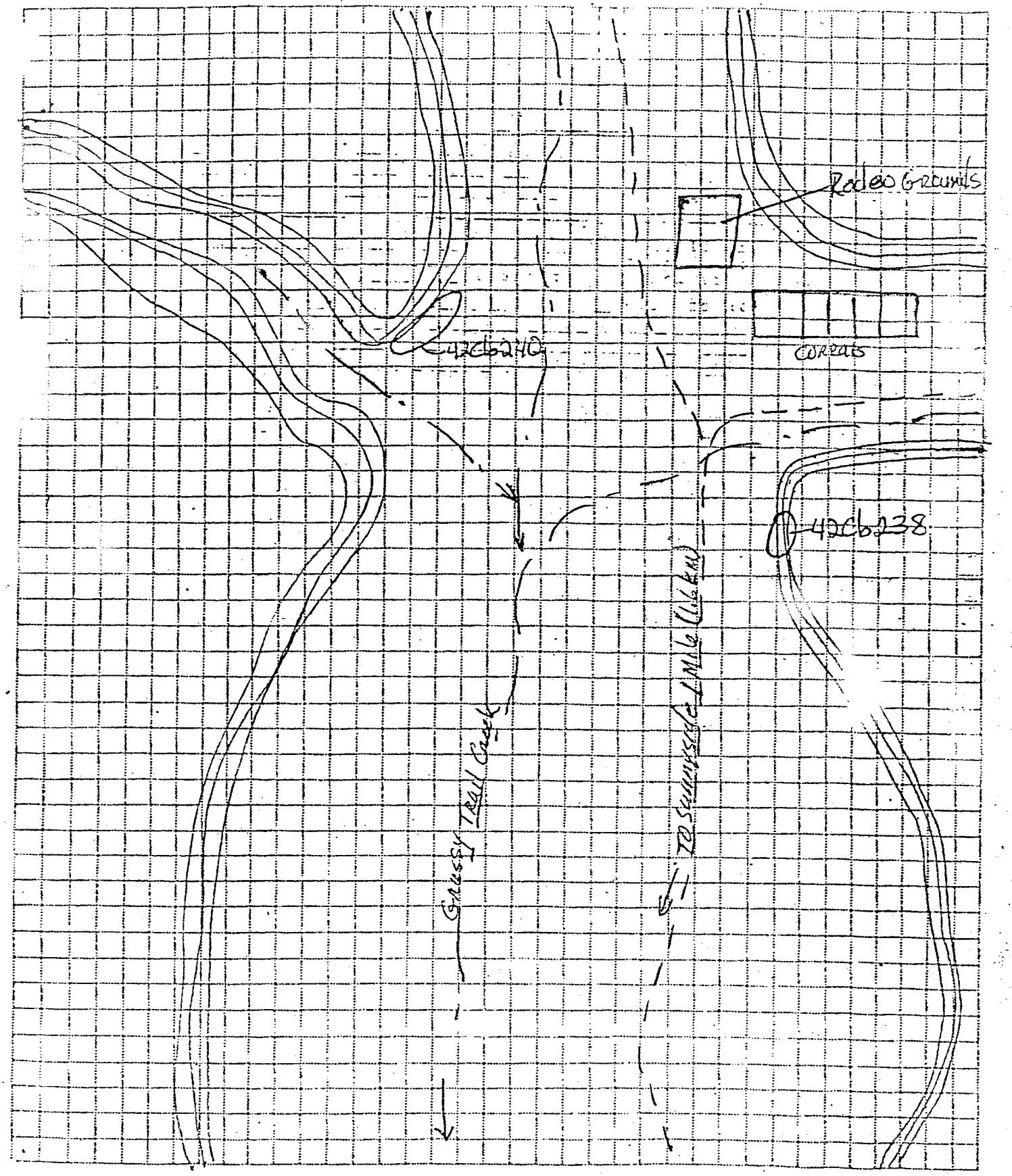
Site 42Cb238
Top: Close-up of the Petroglyphs.
Bottom; General Site Area Looking North.

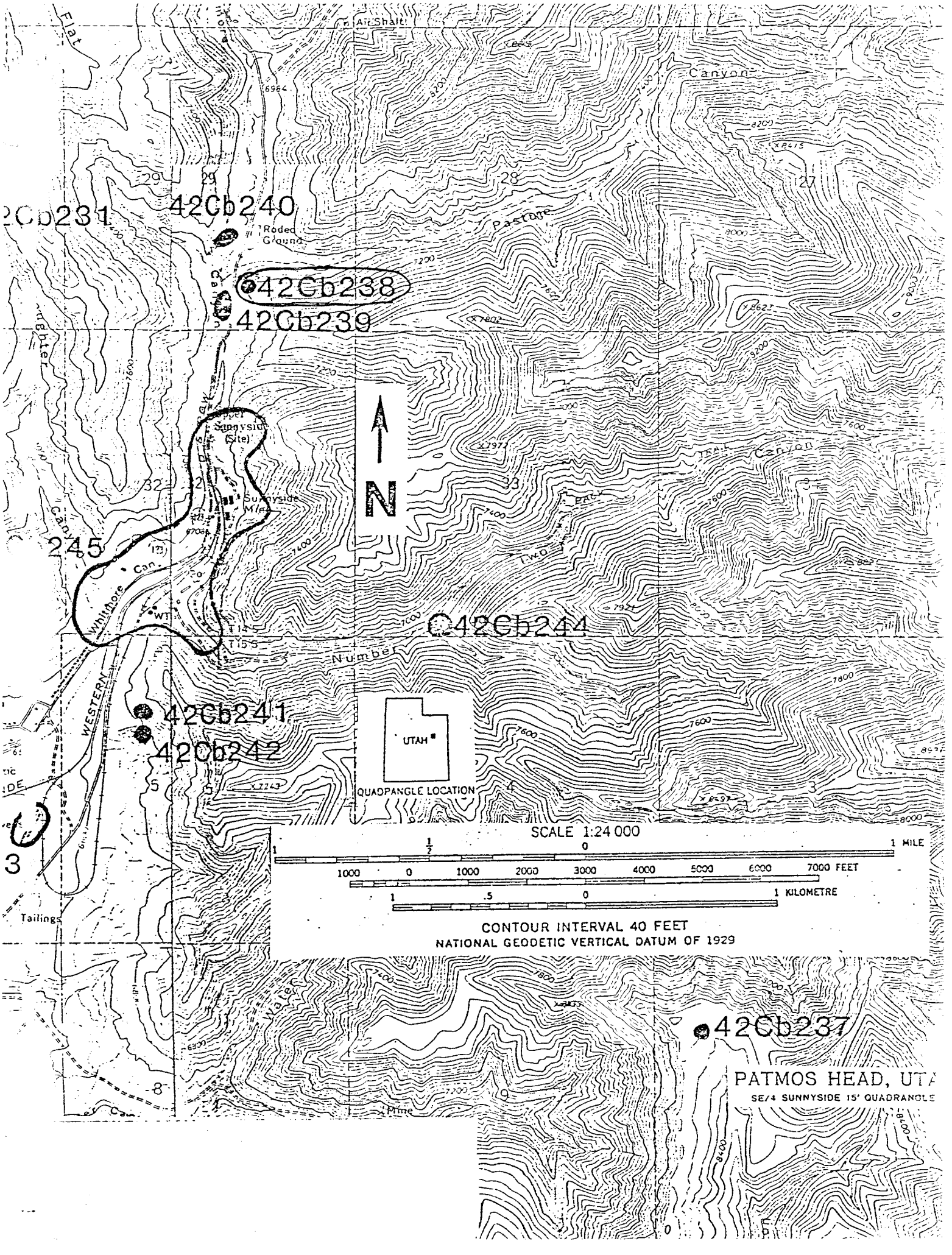
35. Encoding Form: (all entries are right justified)



Form must be accompanied by a site map; photocopy of U.S.G.S. topo map with T., R., scale, and quad name; photographs of the site; and artifact sketches (if applicable).

SITE NO. 42Cb 238





42Cb240
42Cb238
42Cb239
42Cb244
42Cb241
42Cb242
42Cb237
Roded Ground
Sunnyside (Site)
Sunnyside Mine
Whitmore Can.
WESTERN
Tailings
Canyon
Pasture
Number
Two Pack Trail
Water
Mine
N
UTAH
QUADRANGLE LOCATION
SCALE 1:24 000
1 MILE
7000 FEET
1 KILOMETRE
CONTOUR INTERVAL 40 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929
PATMOS HEAD, UTA
SE/4 SUNNYSIDE 15' QUADRANGLE

UTAH ANTIQUITIES SITE FORM
developed by cooperative agreement by:
Bureau of Land Management
Division of State History
University of Utah Archeological Center

1. Site No. [I/1-10] 42Cb239

2. County Carbon
3. Temp. No. K-9
4. Class: ___ Prehistoric X Historic ___ Paleontologic
5. Cultural Site Type (interpreted function): Dump or town site
6. Paleontological Site Type: ___ Invertebrate; ___ Vertebrate; ___ Flora
7. Elevation [I/11-15] 6800 ft. X.3048= 2072 m.
elevation source: Contour
8. UTM Grid: [I/16-30] zone 12 ; 554000 m E; 4380300 m N
9. [II/1-16] W½ of SW of SE of Section 29 T. 14S , R. 14E
10. Map Reference: Patmos Head, Utah Series: ___ Date: ___
11. Aerial Photo Data: ___

12. Site Location: One-fourth mile southwest of rodeo grounds. Just west of U-123, 2/3 mile north of Kaiser Steel Coal offices - in Whitmore Canyon,

13. Land Owner [II/17-18]: Private, Kaiser Steel Corporation.
BLM District/Forest [II/19]: ___
14. Site Name/Previous Designations: None
15. Description of Site: A heavy deposit of historic trash, just west of the highway on the canyon bottom. Includes a large variety of ceramics, glass, metal, wood, shaped blocks, concrete and ash (clinker) deposit.

16. Artifacts: Artifacts should be described/drawn on a continuation sheet and their locations plotted on the site map.

CLASS	QUANTITY
Debitage [II/30]	
Bifaces [III/1-9]	
Scrapers [III/1-9]	
Utilized Flakes	

CLASS	TYPE	QUANTITY
Ceramics [III/10-21]	numerous	500+
Proj Pnt [III/1-9]		
Gnd Stn [II/22-29]		
Glass [II/22-29]	numerous	500+
Metal [II/22-29]	tin, toys, etc.	100+
Nails [II/22-29]	various	20+
Cans [II/22-29]	yes	100's
Wood [II/22-29]	cut boards	100+
Other [II/22-29]		

Description: A large variety of glass (bottles, etc., of purple, brown, blue, clear, yellow) ceramics include crockery, porcelain, milk glass, ironstone, etc.

17. Non-Structural Features: (describe and locate on site map) [III/22-27]

_hearth/firepit(HE)	_rubble mound(RM)	_earthen mound(EM)	_trail/road(TR)
X midden(MD)	_stone circle(SC)	_burial(BU)	_RR grade(RG)
X depression(DE)	_rock alignment(RA)	_pictograph(PI)	_tram way/road(TW)
_water control(WC)	_mine tailings(MT)	_petroglyph(PE)	_other(OT)

Description: Area is one by midden, possible depressions (4) on north end.

18. Structural Features: (describe and locate on site map) [III/28-IV/6]

CLASS	MATERIAL	QUANTITY	CLASS	MATERIAL	QUANTITY
Single rm			Tower		
Multiple rm			Cairn		
Granary			Corral		
Cist			Dugout		
Pithouse			Kiln		
Kiva			Monument		
Well			Mine		

Description: None observed.

19. Cultural Affiliation [IV/7-14]: Historic
How Determined? Glass, ceramics, metal
20. Site Dimensions : 100 m X 40 m; Area [IV/17-21]: _____ sq m
21. Were surface artifacts collected? X Yes; __No; [IV/22] If yes, attach a continuation sheet describing sampling method used. Grab
22. Estimated depth of fill [IV/23] : Unknown
Subsurface test? __Yes; X No (Include location of test on site map)
Description: Pot holes show at least 30 cm depth.
23. Site Condition [IV/25] : __Excellent; __Good; X Fair; __Poor
Agent of Impact: _____
24. Nat. Register Potential [V/1]: X Significant (C); __Non-Significant (D)
Justification: May be a structure in depression. If its an old design of Sunnyside, then historic material culture could be studied.

25. Research Potential: Yes
26. Recommended Mitigation: Preserve.
27. Direction/Distance to Permanent Water [V/5-10] : west / 6 m
Type/Name of Water Source [V/11] : Grassy Trail Creek.
Distance to nearest other Water Source [V/2-4]: Unknown
Type of other water source: _____
Distance to Cultivatable Soil [V/12-14] : site
28. Topographic Location (check one under each heading) [V/15-18]

PRIMARY LANDFORM	POSITION ON LANDFORM	DEPOSITIONAL ENVIRONMENT		SECONDARY POSITION
_mountain spine(A)	_top/crest/peak(A)	_fan(A)	_marsh(L)	_top/crest/ridge(A)
_hill/butte(B)	_edge(B)	_talus(B)	_landslide/slump(M)	_edge(B)
_tableland/mesa(C)	_slope(C)	_dune(C)	_delta(N)	_slope(C)
_ridge(D)	_toe/foot/bottom(D)	X stream terrace(D)	_island(O)	_toe/foot(D)
_valley(E)	_saddle/pass(E)	_playa(E)	_cliff(P)	_cutbank(E)
_plain(F)	_bench/ledge(F)	shore feature	_outcrop(Q)	_detached monolith(F)
X canyon(G)	_rimrock(G)	_extinct lake(F)	_stream bed(R)	X interior(G)
	X interior(H)	_extant lake(G)		_step(H)
		_alluvial plain(H)		_riser(I)
		_coluvium(I)		_port.geo.feature(J)
		_moraine(J)		_spring mound/bog(K)
		_flood plain(K)		_cave(L)
				_alcove/shelter(M)
				_patterned ground(N)

Description: On first terrace of Whitmore Creek - surrounded by hills and cliffs. Alluvial floodplain of creek, now cut into by creek.

29. Degree/Aspect of slope [V/19-23] : 1° south
30. Vegetation COMMUNITY and association [V/24-25]:

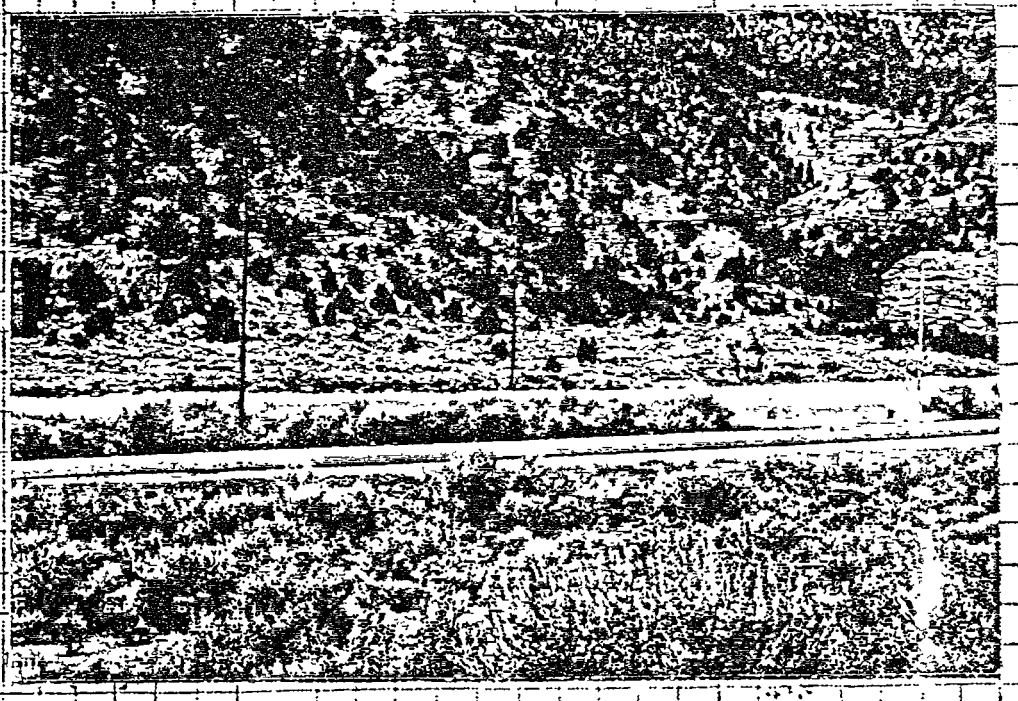
_ALPINE GRASSLAND(AA)	_YELLOW PINE-OAK(DZ)	_COLD DESERT SHRUB(FZ)	_SALT DESERT SHRUB(GZ)	_WARM DESERT SHR (E
	_ponderosa pine(DA)	_sagebrush(FA)	_greasewood(GA)	_desert saltbrush(EA
_SPRUCE FIR(BZ)	_oakbrush(DB)	_small sagebrush(FB)	_grswood-shadscl(GB)	_creosote bush(EB)
_krumholz(BA)	_mountain brush(DC)	_little rabbitbrsh(FC)	_seepweed(GC)	_creosote/bursag (EC
_white fir-spruce(BB)	_maple(DD)	_shadscale(FD)	_picklewd/samphire(GD)	_joshua tree(HD)
_ASPEN DOUGLAS FIR(CZ)	X streamside(DE)	_horsebrush(FE)	_saltgrass(GE)	_MARSH COMMUNITY (A)
_limber pine(CA)		_winter-fat(FF)	_alkali sacaton(GF)	
_douglas fir(CB)		_hop-sage/blkbrsh(FG)	_rabbitbrush(GG)	_ALKALI FLATS/MUD FLATS/DRY LAKE/ WASTELAND(KZ)
_lodgepole pine(CC)	_PLAINS/PRAIRIE(EZ)	_bud sagebrush(FH)		
_bristlecone pine(CD)	_grasslands(EA)	_mat saltbrush(FI)		
_aspen(CE)	_pinyon-juniper(EB)	_gray molly(FJ)		
_streamside(CD)	_streamside(EC)	_streamside(FK)		_CULTIVATED LAND(JZ)
_meadow grassland(CG)				

(Check COMMUNITY only if association cannot be determined)

Description: Mustard and thistle (results of disturbance) sage, rabbit brush.

31. Next nearest plant association/distance: 50 m E B
32. Photograph Numbers [V/26] : AN-81-3-4; AN-81-4-4.
33. Recorded by: Asa S. Nielson
Survey Org. [V/27-28]: Cultural Services, A.S. Date: Jan. 28, 1981
Assisting Crew Members: Jim Kirkman, Jack Oviatt

34. Sponsoring Agency: Kaiser Steel Corporation Contract No. _____



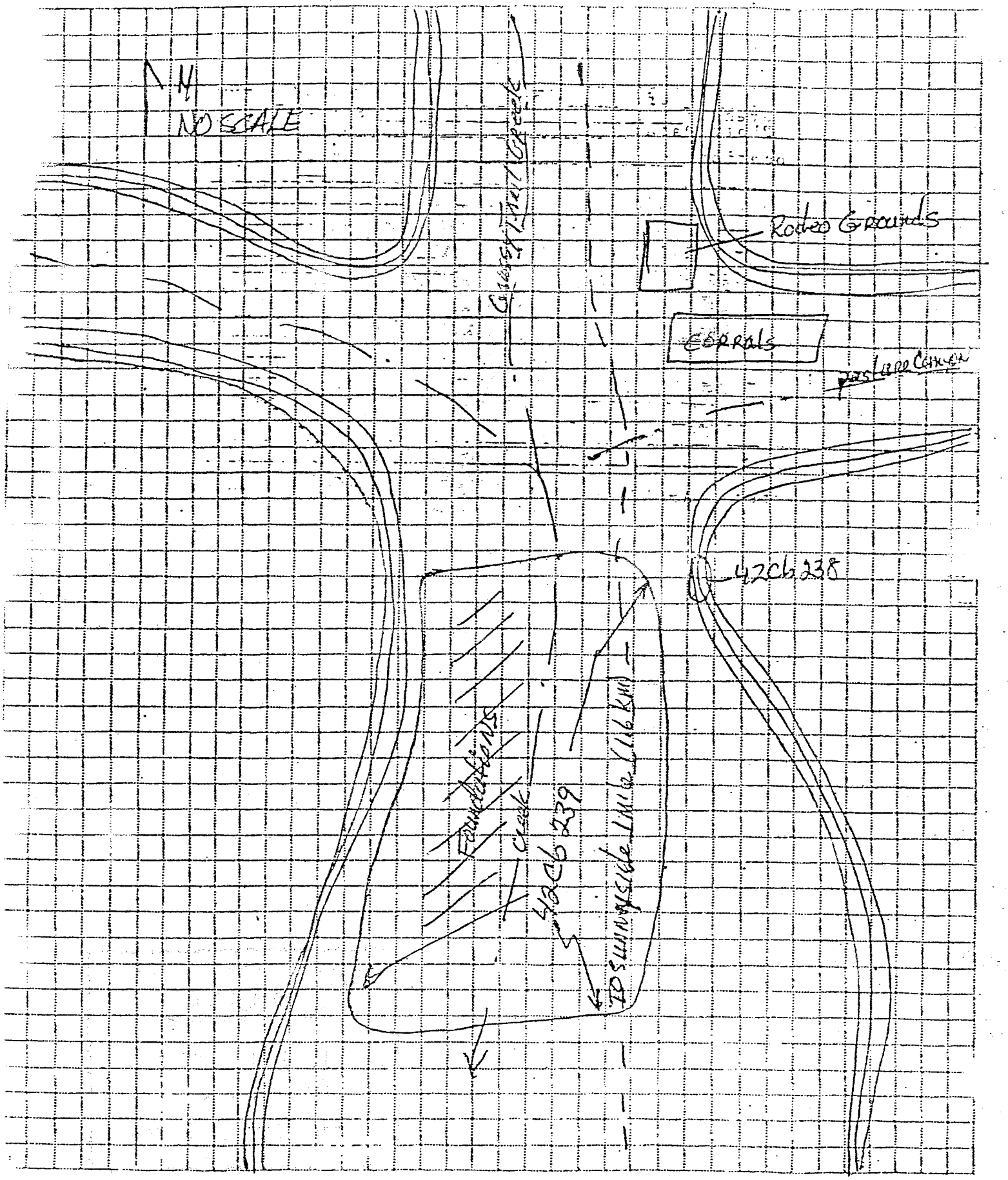
Site 42Cb239
General Site Area Looking
West.

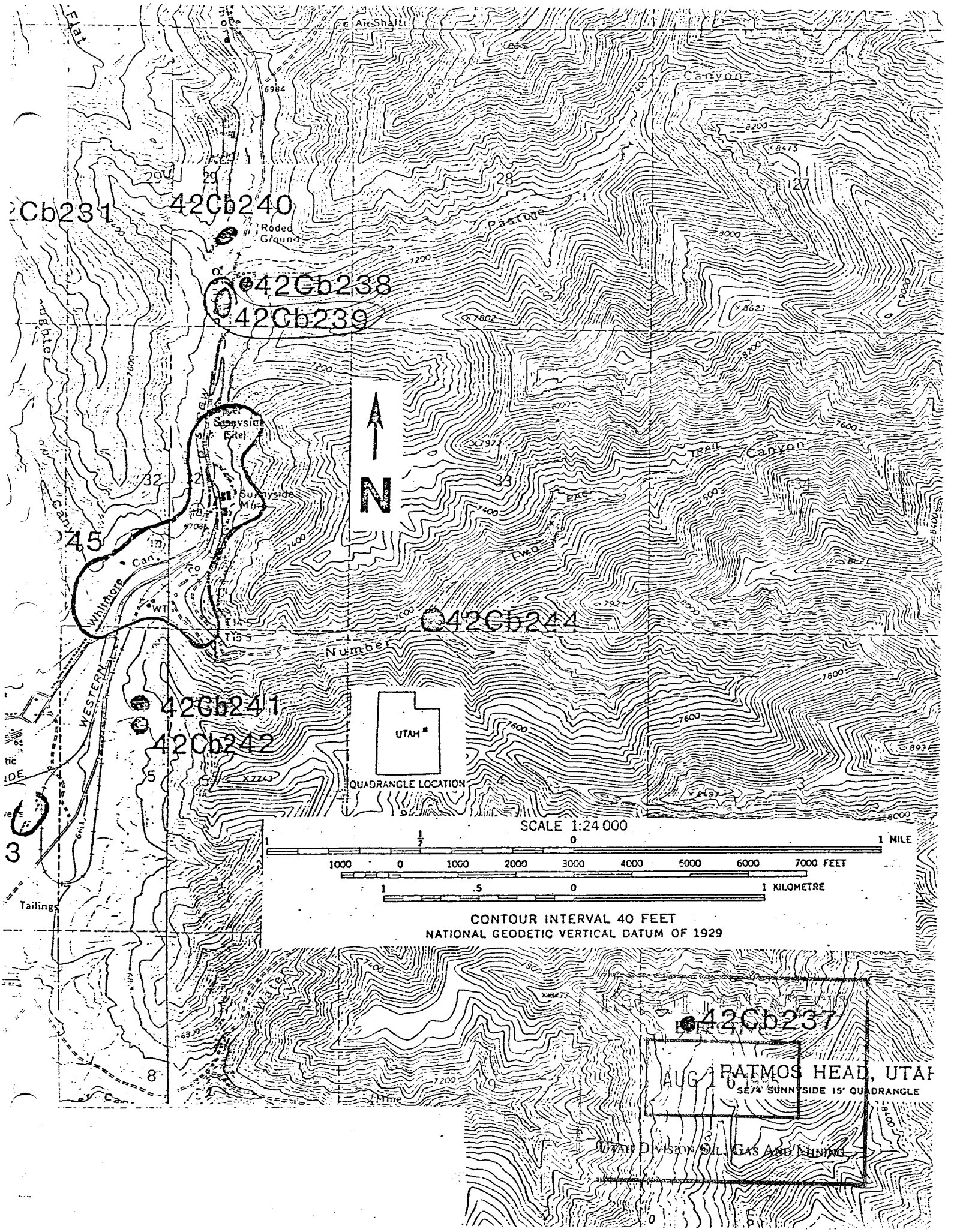
35. Encoding Form: (all entries are right justified)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
I																															
II																															
III																															
IV																															
V																															
VI																															

Form must be accompanied by a site map; photocopy of U.S.G.S. top map with T., R., scale, and quad name; photographs of the site; and artifact sketches (if applicable).

 SITE NO. 42Cb 239





42Cb240
42Cb238
42Cb239
42Cb244
42Cb241
42Cb242
42Cb237
Roded Ground
Sunnyside Mine
Canyon
Pasture
Number
Two
Whitmore Can.
WESTERN
Tailings
Water
N
UTAH
QUADRANGLE LOCATION
SCALE 1:24 000
1 MILE
7000 FEET
1 KILOMETRE
CONTOUR INTERVAL 40 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929
PATMOS HEAD, UTAH
SE74 SUNNYSIDE 15' QUADRANGLE
UTAH DIVISION OIL, GAS AND MINING

UTAH ANTIQUITIES SITE FORM
developed by cooperative agreement by:
Bureau of Land Management
Division of State History
University of Utah Archeological Center

1. Site No. [I/1-10] 42Cb240

2. County Carbon
3. Temp. No. K-10

4. Class: X Prehistoric ___ Historic ___ Paleontologic
5. Cultural Site Type (interpreted function): Rockshelter/rock art
6. Paleontological Site Type: ___ Invertebrate; ___ Vertebrate; ___ Flora
7. Elevation [I/11-15] 6900 ft. X.3048 = 2103 m.
elevation source: Contour
8. UTM Grid: [I/16-30] zone 12 ; 553920 m E; 4380550 m N
9. [II/1-16] NW of SW of SE of Section 29 T. 14S , R. 14E
10. Map Reference: Patmos Head, Utah Series: 7.5 Date: 1972
11. Aerial Photo Data:

12. Site Location: Due west of rodeo grounds, about 200 m west of U-123. Area is above and 2/3 mile north of Kaiser Steel Coal Office in Whitmore Canyon.

13. Land Owner [II/17-18]: Private, Kaiser Steel Corp.
BLM District/Forest [II/19]:
14. Site Name/Previous Designations: None
15. Description of Site: A rockshelter, rock art site at base of first cliff on west side of Whitmore Canyon. Site is a long (12 m) rockshelter with some slope wash. Recent vandalism in shelter. Petroglyphs are geometric, anthropomorphs zoomorphs. Some resemble figurines. Pictos are red/yellow anthropomorphs.

16. Artifacts: Artifacts should be described/drawn on a continuation sheet and their locations plotted on the site map.

CLASS	QUANTITY
Debitage [II/30]	10
Bifaces [III/1-9]	1
Scrapers [III/1-9]	
Utilized Flakes	

CLASS	TYPE	QUANTITY
Ceramics [III/10-21]	Emery Gray	4+
Proj Pnt [III/1-9]		
Gnd Stn [II/22-29]		
Glass [II/22-29]		
Metal [II/22-29]		
Nails [II/22-29]		
Cans [II/22-29]		
Wood [II/22-29]		
Other [II/22-29]	Bone - lots yet	

Description: Ceramics are Emery gray ware, lithics white cherts. Bone appears to be sheep, deer, rabbit.

17. Non-Structural Features: (describe and locate on site map) [III/22-27]

_hearth/firepit(HE)	_rubble mound(RM)	_earthen mound(EM)	_trail/road(TR)
_midden(MD)	_stone circle(SC)	_burial(BU)	_RR grade(RG)
_depression(DE)	_rock alignment(RA)	X pictograph(PI)	_tram way/road(TW)
_water control(WC)	_mine tailings(MT)	X petroglyph(PE)	_other(OT)

Description: Red/yellow anthropomorphs (chalking in) a variety of petroglyphs all along the shelter walls.

18. Structural Features: (describe and locate on site map) [III/28-IV/6]

CLASS	MATERIAL	QUANTITY	CLASS	MATERIAL	QUANTITY
Single rm			Tower		
Multiple rm			Cairn		
Granary			Corral		
Cist	shaped stone	1	Dugout		
Pithouse			Kiln		
Kiva			Monument		
Well			Mine		

Description: Looks like a small cist on south side of the shelter. Hit by vandals.

SITE NO. 42Cb240

19. Cultural Affiliation [IV/7-14]: Fremont (?)
How Determined? Ceramics
20. Site Dimensions : 4 m X 12 m; Area [IV/17-21]: ____ sq m
21. Were surface artifacts collected? X Yes; __ No; [IV/22] If yes, attach a continuation sheet describing sampling method used. Grab
22. Estimated depth of fill [IV/23] : 1 meter plus.
Subsurface test? __ Yes; X No (Include location of test on site map)
Description: Viewed in vandalism holes.
23. Condition [IV/25] : __ Excellent; __ Good; X Fair; __ Poor
Area of Impact: Vandalism only
24. Nat. Register Potential [V/1]: X Significant (C); __ Non-Significant (D)
Justification: Still some fill and a possible cist left. Good location for montane hunting site study.

25. Research Potential: Yes
26. Recommended Mitigation: Test/preserve
27. Direction/Distance to Permanent Water [V/5-10] : east / 50 m
Type/Name of Water Source [V/11] : Grassy Trail Creek
Distance to nearest other Water Source [V/2-4]: Unknown
Type of other water source: ____
Distance to Cultivatable Soil [V/12-[illegible]] : [illegible] m
28. Topographic Location (check one under each heading) [V/15-18]

PRIMARY LANDFORM
- _ mountain spine(A)
- _ hill/butte(B)
- _ tableland/mesa(C)
- _ ridge(D)
- _ valley(E)
- _ plain(F)
- X canyon(G)

POSITION ON LANDFORM
- _ top/crest/peak(A)
- _ edge(B)
- X slope(C)
- _ toe/foot/bottom(D)
- _ saddle/pass(E)
- _ bench/ledge(F)
- _ rimrock(G)
- _ interior(H)

DEPOSITIONAL ENVIRONMENT
- _ fan(A)
- _ talus(B)
- _ dune(C)
- _ stream terrace(D)
- _ playa(E)
- shore feature
  - _ extinct lake(F)
  - _ extant lake(G)
- _ alluvial plain(H)
- _ coluvium(I)
- _ moraine(J)
- _ flood plain(K)
- _ marsh(L)
- _ landslide/slump(M)
- _ delta(N)
- _ island(O)
- _ cliff(P)
- X outcrop(Q)
- _ stream bed(R)

SECONDARY POSITION
- _ top/crest/ridge(A)
- X edge(B)
- _ slope(C)
- _ toe/foot(D)
- _ cutbank(E)
- _ detached monolith(F)
- _ interior(G)
- _ step(H)
- _ riser(I)
- _ port.geo.feature(J)
- _ spring mound/bog(K)
- _ cave(L)
- _ alcove/shelter(M)
- _ patterned ground(

Description: Under an outcrop of sandstone, above stream floodplain. Site extends down talus slope to floodplain.

29. Degree/Aspect of slope [V/19-23] : 2 deg. south
30. Vegetation COMMUNITY and association [V/24-25]:

- _ ALPINE GRASSLAND(AA)
- _ SPRUCE FIR(BZ)
- _ krumholz(BA)
- _ white fir-spruce(BB)
- _ ASPEN DOUGLAS FIR(CZ)
- _ limber pine(CA)
- _ douglas fir(CB)
- _ lodgepole pine(CC)
- _ bristlecone pine(CD)
- _ aspen(CE)
- _ streamside(CD)
- _ meadow grassland(CG)

- _ YELLOW PINE-OAK(DZ)
- _ ponderosa pine(DA)
- _ oakbrush(DB)
- _ mountain brush(DC)
- _ maple(DD)
- _ streamside(DE)

- _ PLAINS/PRAIRIE(EZ)
- _ grasslands(EA)
- X pinyon-juniper(EB)
- _ streamside(EC)

- _ COLD DESERT SHRUB(FZ)
- _ sagebrush(FA)
- _ small sagebrush(FB)
- _ little rabbitbrsh(FC)
- _ shadscale(FD)
- _ horsebrush(FE)
- _ winter-fat(FF)
- _ hop-sage/blkbrsh(FG)
- _ bud sagebrush(FH)
- _ mat saltbrush(FI)
- _ gray molly(FJ)
- _ streamside(FK)

- _ SALT DESERT SHRUB(GZ)
- _ greasewood(GA)
- _ grswood-shadscl(GB)
- _ seepweed(GC)
- _ picklewd/samphire(GD)
- _ saltgrass(GE)
- _ alkali sacaton(GF)
- _ rabbitbrush(GG)

- _ WARM DESERT SHRU
- _ desert saltbrush(
- _ creosote bush(HB)
- _ creosote/bursage
- _ joshua tree(HD)
- _ MARSH COMMUNITY(
- _ ALKALI FLATS/MUD FLATS/DRY LAKE/ WASTELAND(KZ)
- _ CULTIVATED LAND(JZ)

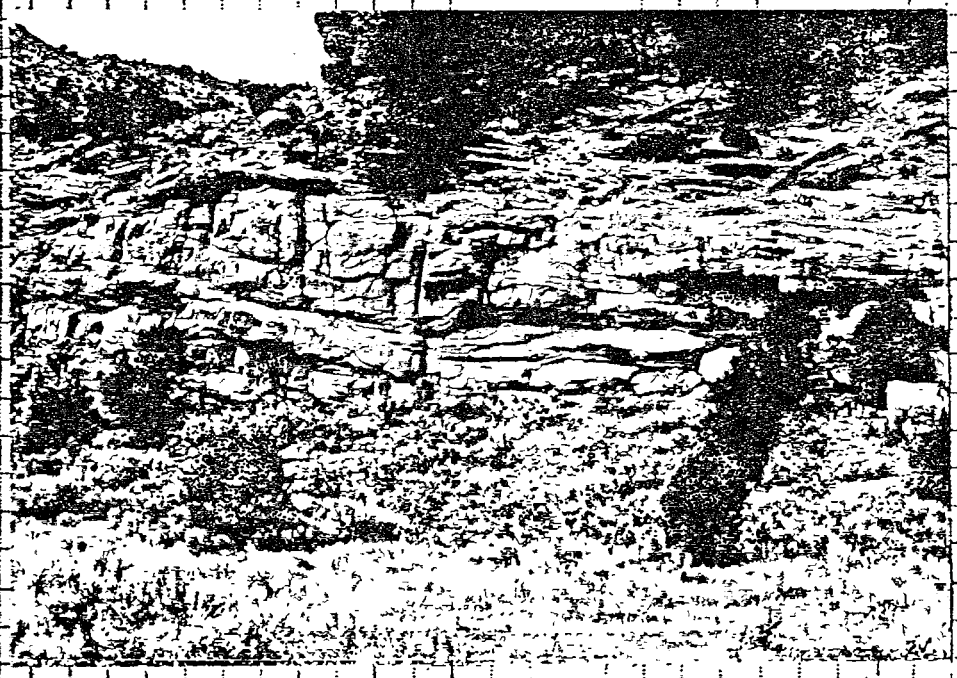
(Check COMMUNITY only if association cannot be determined)

Description: Pinyon, juniper, sage, service berry.

31. Next nearest plant association/distance: E C 50 M east
32. Photograph Numbers [V/26] : AN-81-3 AN-81-4
33. Recorded by: Asa S. Nielson
Survey Org. [V/27-28]: Cultural Services, A.S. Date: Jan. 28, 1981
Assisting Crew Members: Jim Kirkman, Jack Oviatt

34. Sponsoring Agency: Kaiser Steel Corp. Contract No. ____

SITE NO. _____



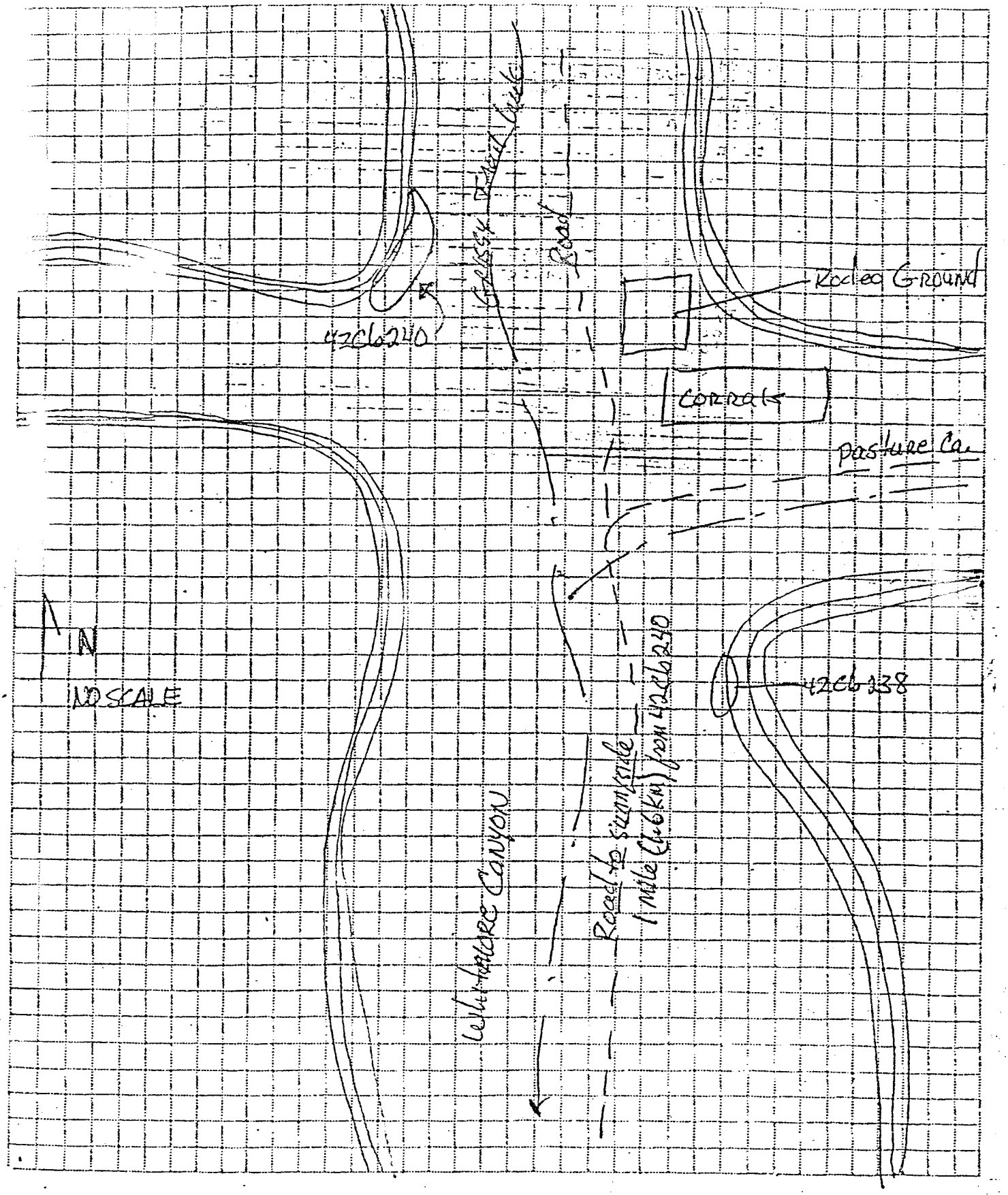
Site 42Cb240
General Site Area Looking West.

35. Encoding Form: (all entries are right justified)

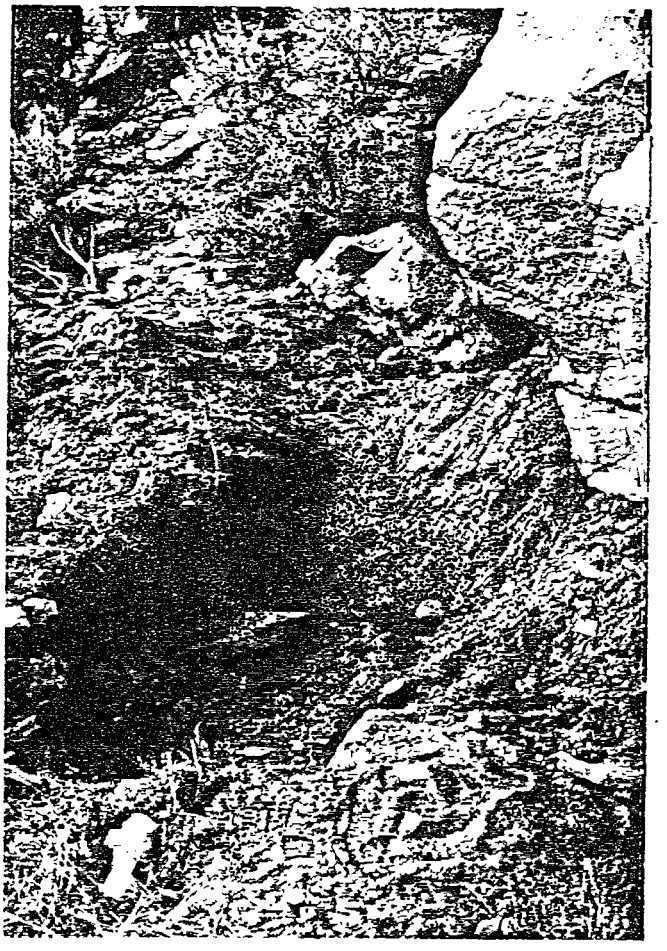
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
I																															
II																															
III																															
IV																															
V																															
VI																															

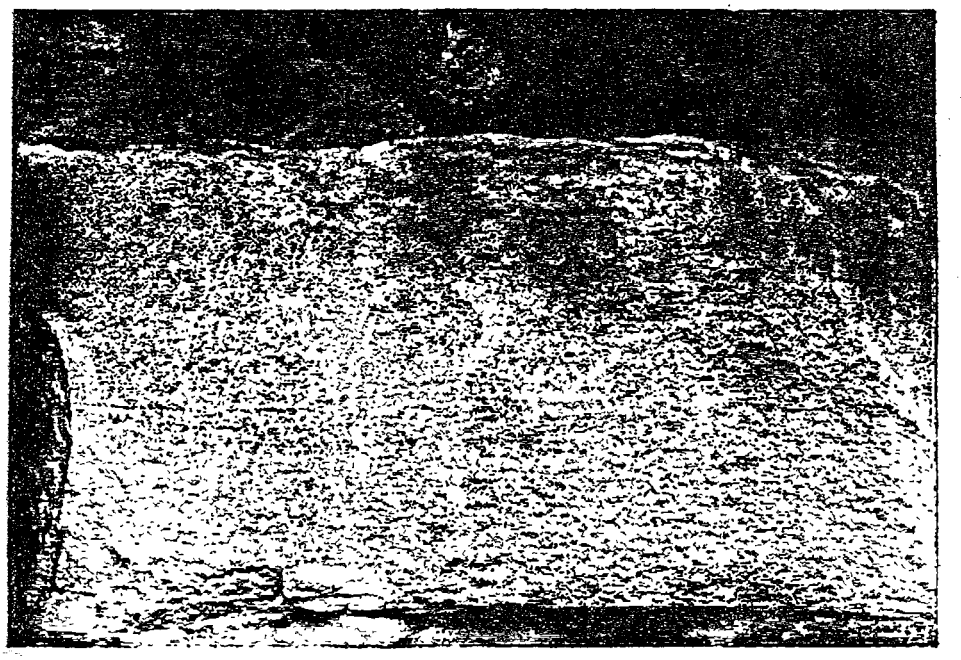
Form must be accompanied by a site map; photocopy of U.S.G.S. topo map with T., R., scale, and quad name; photographs of the site; and artifact sketches (if applicable).

 SITE NO. 42Cb 240

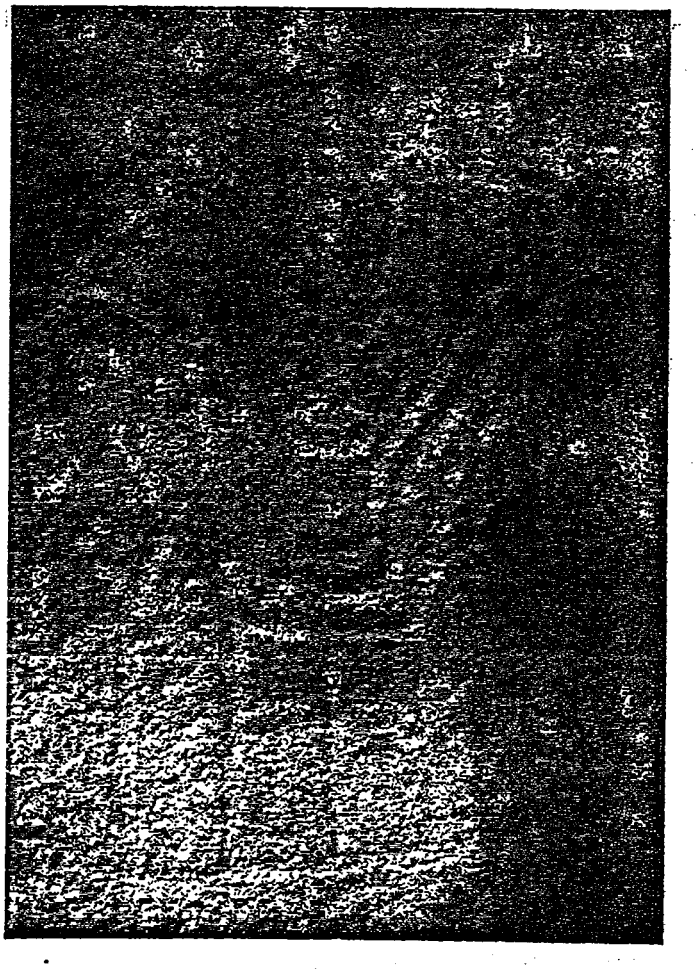


Vandalism at south end of 42Cb240.

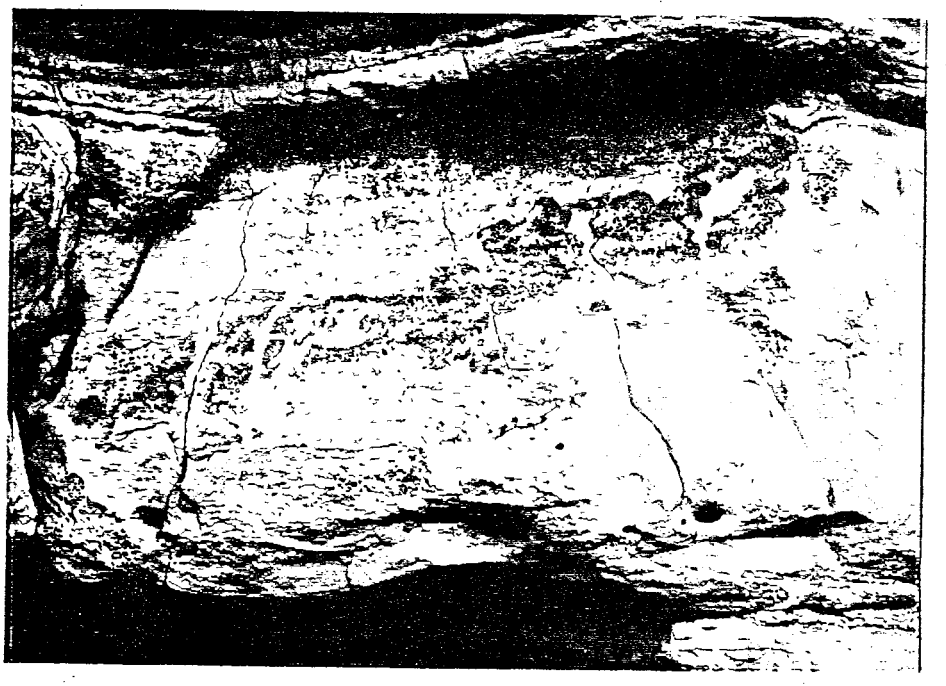




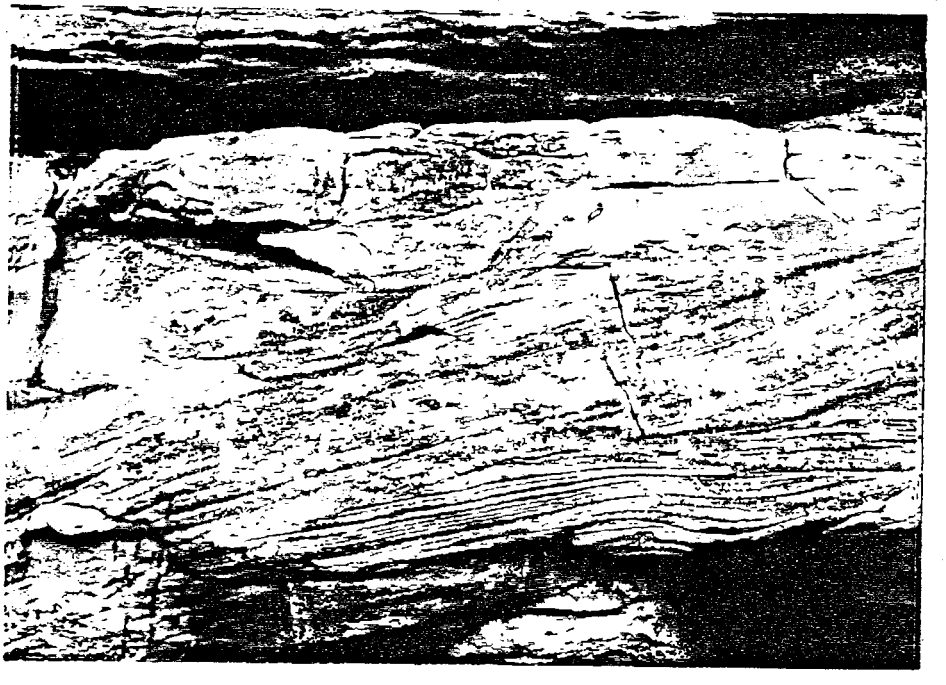
Horned petroglyph at 42Cb240



Figurine style petroglyph at 42Cb240

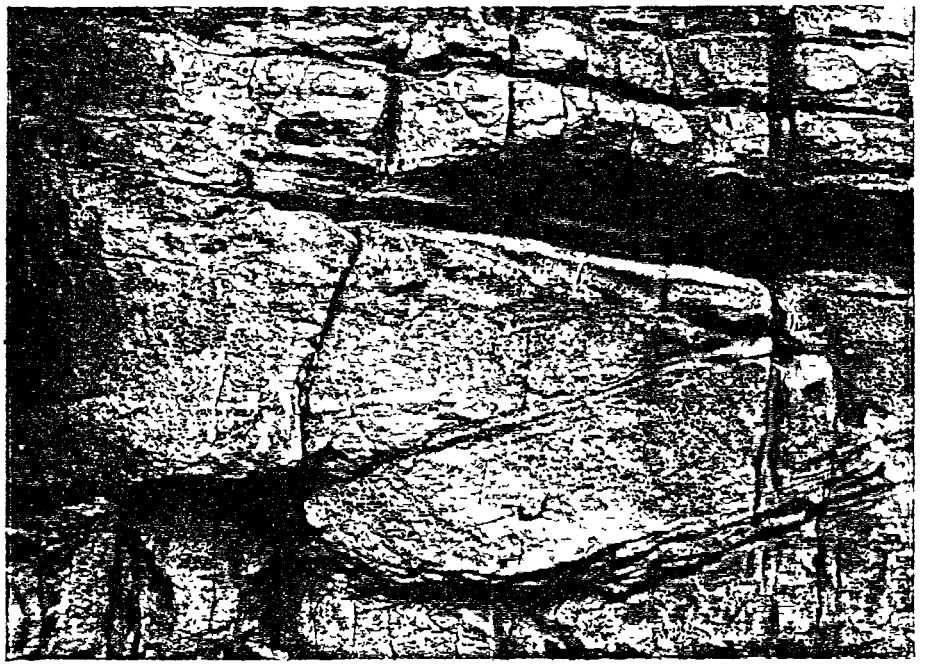


Anthropomorphs and Zoomorphs at 42Cb240.



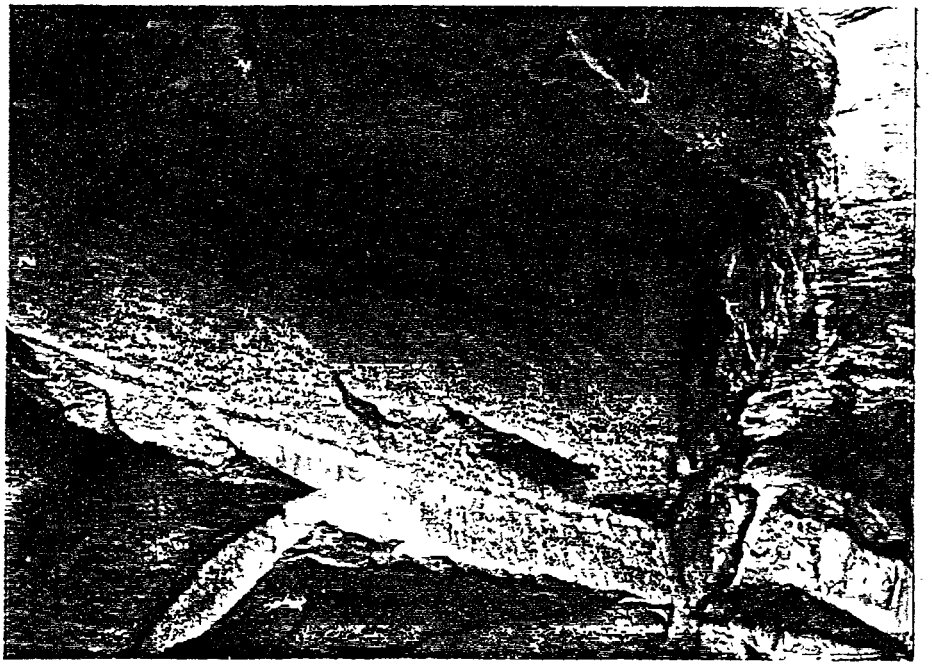
Anthropomorphs and Zoomorphs at 42Cb240.

Hunting scene at 42Cb240.



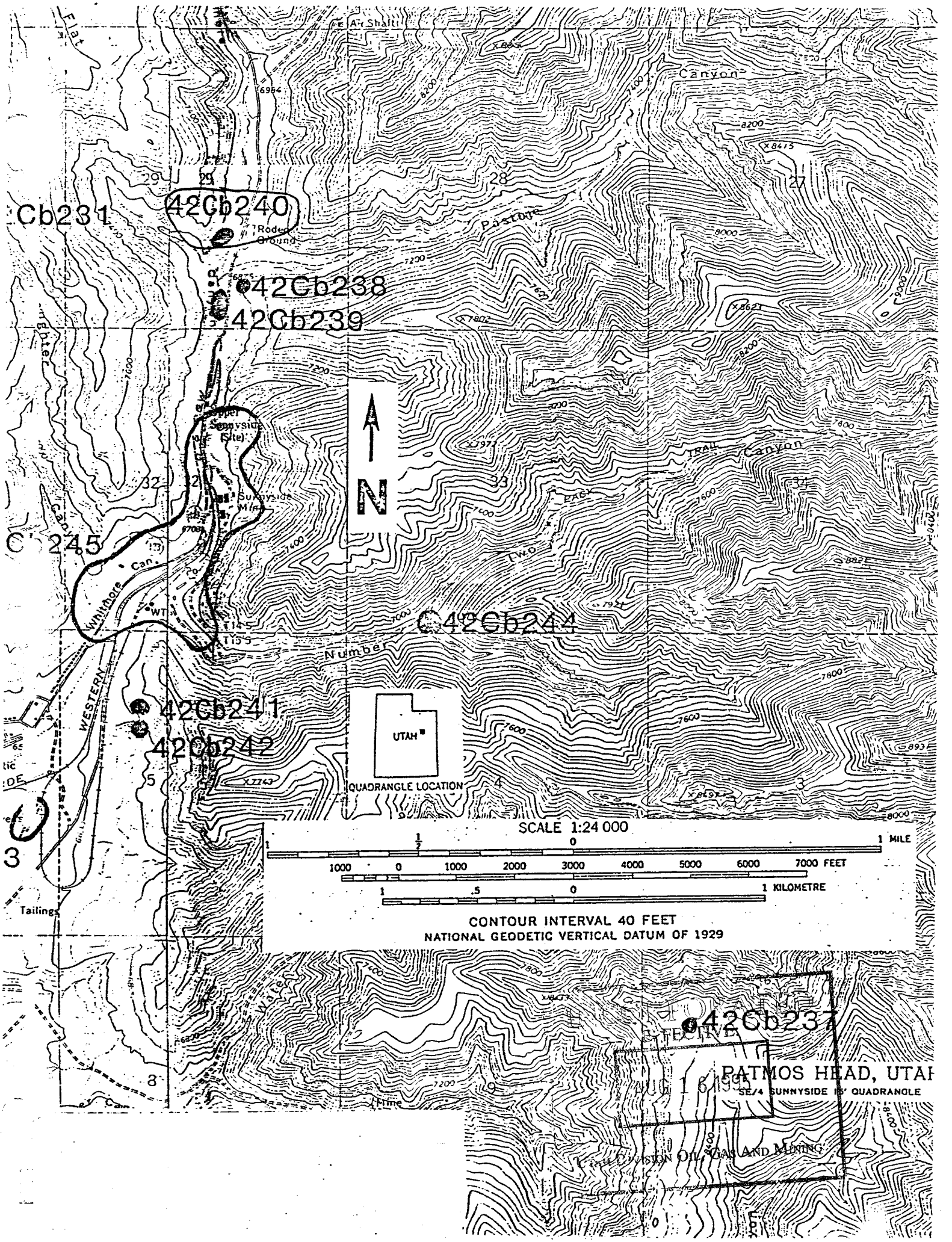
Zoomorphs at 42Cb240.

Multi-colored anthropomorphs at 42Cb240.



Multi-colored pictographs at 42Cb240.

Geomorphs at 42Cb240.



42Cb240
42Cb238
42Cb239
42Cb244
42Cb241
42Cb242
42Cb237
Cb231
Cb245
Canyon
Pasture
Rodeo Ground
Upper Sunnyside (Site)
Sunnyside Mine
Whitmore Can.
WESTERN
Number
Two
PACK
TRAIL
Canyon
Tailings
Water
Mine
N
UTAH
QUADRANGLE LOCATION
SCALE 1:24 000
1 MILE
7000 FEET
1 KILOMETRE
CONTOUR INTERVAL 40 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929
PATMOS HEAD, UTAH
SE/4 SUNNYSIDE 15' QUADRANGLE
AUG 16 1995
DIVISION OIL, GAS AND MINING

UTAH ANTIQUITIES SITE FORM
developed by cooperative agreement by:
Bureau of Land Management
Division of State History
University of Utah Archeological Center

1. Site No. [I/1-10] 42Cb241

2. County Carbon
3. Temp. No. K-11

4. Class: X Prehistoric ___ Historic ___ Paleontologic
5. Cultural Site Type (interpreted function): Open structure
6. Paleontological Site Type: ___ Invertebrate; ___ Vertebrate; ___ Flora
7. Elevation [I/11-15] 6720 ft. X.3048 = 2048 m.
elevation source: Contour
8. UTM Grid: [I/16-30] zone 12 ; 553590 m E; 4378140 m N
9. [II/1-16] NE of SW of NW of Section 5 T. 15S , R. 14E
10. Map Reference: Sunnyside, Utah Series: 7.5 Date: 1972
11. Aerial Photo Data:

12. Site Location: On ridge line due east (1/3 mile) of Sunnyside. Go 3/4 mile south on road along railroad from Kaiser Steel Coal office. On east side of mouth of Whitmore Canyon.

13. Land Owner [II/17-18]: Private, Kaiser Steel Corp.
BLM District/Forest [II/19]:
14. Site Name/Previous Designations: None
15. Description of Site: Two structures, lithics, ceramics, and one mano on a small N/S tending ridge line. One structure on south end (square) and one on north end (round). Area is eroded sandstone with small juniper and pinyon trees. Most ceramics associated with round structures.

16. Artifacts: Artifacts should be described/drawn on a continuation sheet and their locations plotted on the site map.

CLASS	QUANTITY
Debitage [II/30]	4
Bifaces [III/1-9]	
Scrapers [III/1-9]	
Utilized Flakes	

CLASS	TYPE	QUANTITY
Ceramics [III/10-21]	Sevier Gray	15+
Proj Pnt [III/1-9]		
Gnd Stn [II/22-29]	Retangular mano	1
Glass [II/22-29]		
Metal [II/22-29]		
Nails [II/22-29]		
Cans [II/22-29]		
Wood [II/22-29]		
Other [II/22-29]		

Description: Gray chert flakes, Sevier Gray ware, and a purple quartzite mano.

17. Non-Structural Features: (describe and locate on site map) [III/22-27]

_hearth/firepit(HE)	_rubble mound(RM)	_earthen mound(EM)	_trail/road(TR)
_midden(MD)	X stone circle(SC)	_burial(BU)	_RR grade(RG)
_depression(DE)	_rock alignment(RA)	_pictograph(PI)	_tram way/road(TW)
_water control(WC)	_mine tailings(MT)	_petroglyph(PE)	_other(OT)

Description: 50 X 50 cm circle of stone on north end of large round structure.

18. Structural Features: (describe and locate on site map) [III/28-IV/6]

CLASS	MATERIAL	QUANTITY	CLASS	MATERIAL	QUANTITY
Single rm			Tower		
Multiple rm	stone slabs	2	Cairn		
Granary			Corral		
Cist			Dugout		
Pithouse			Kiln		
Kiva			Monument		
Well			Mine		

Description: One structure about 1.5 m X 1.5 m square of shaped stone. Round structure about 2 m diameter. Mostly on unshaped upright slabs.

19. Cultural Affiliation [IV/7-14]: Fremont
How Determined? Ceramics
20. Site Dimensions : 10 m X 40 m; X Area [IV/17-21]; ____ sq
21. Were surface artifacts collected? __Yes; __No; [IV/22] If yes, attach a continuation sheet describing sampling method used.
22. Estimated depth of fill [IV/23] : Unknown, assumed structure fill.
Subsurface test? __Yes; X No (Include location of test on site map)
Description:
23. Site Condition [IV/25] : __Excellent; X Good; __Fair; __Poor
Agent of Impact: Erosion only; no vandalism.
24. Nat. Register Potential [V/1]: X Significant (C); __Non-Significant (D)
Justification: Two good structures, undisturbed, good subsistence data, dating, etc.

25. Research Potential: Yes
26. Recommended Mitigation: Preserve or excavate.
27. Direction/Distance to Permanent Water [V/5-10] : west / 200 m
Type/Name of Water Source [V/11] : Grassy Trail Creek
Distance to nearest other Water Source [V/2-4]: Unknown
Type of other water source:
Distance to Cultivatable Soil [V/12-14] : 75 meters
28. Topographic Location (check one under each heading) [V/15-18]

PRIMARY LANDFORM	POSITION ON LANDFORM	DEPOSITIONAL ENVIRONMENT		SECONDARY POSITION
_mountain spine(A)	X top/crest/peak(A)	_fan(A)	_marsh(L)	X top/crest/ridge(A)
_hill/butte(B)	_edge(B)	_talus(B)	_landslide/slump(M)	_edge(B)
_tableland/mesa(C)	_slope(C)	_dune(C)	_delta(N)	_slope(C)
X ridge(D)	_toe/foot/bottom(D)	_stream terrace(D)	_island(O)	_toe/foot(D)
_valley(E)	_saddle/pass(E)	_playa(E)	_cliff(P)	_cutbank(E)
_plain(F)	_bench/ledge(F)	shore feature	_outcrop(Q)	_detached monolith(F)
_canyon(G)	_rimrock(G)	_extinct lake(F)	_stream bed(R)	_interior(G)
	_interior(H)	_extant lake(G)		_step(H)
		_alluvial plain(H)		_riser(I)
		X coluvium(I)		_port.geo.feature(J)
		_moraine(J)		_spring mound/bog(K)
		_flood plain(K)		_cave(L)
				_alcove/shelter(M)
				_patterned ground(N)

Description: On a small coluvial ridge which extends N/S from the main canyon side. Ridge is a rocky sand/clay, some erosion. Main creek channel is 200 m. west and 150 ft below.

29. Degree/Aspect of slope [V/19-23] : 0-5 west.
30. Vegetation COMMUNITY and association [V/24-25]:

_ALPINE GRASSLAND(AA)	_YELLOW PINE-OAK(DZ)	_COLD DESERT SHRUB(FZ)	_SALT DESERT SHRUB(GZ)	_WARM DESERT SHR (HZ)
	_ponderosa pine(DA)	_sagebrush(FA)	_greasewood(GA)	_desert saltbrush(HA)
_SPRUCE FIR(BZ)	_oakbrush(DB)	_small sagebrush(FB)	_grswood-shadscl(GB)	_creosote bush(HB)
_krumholz(BA)	_mountain brush(DC)	_little rabbitbrsh(FC)	_seepweed(GC)	_creosote/bursag (HC)
_white fir-spruce(BB)	_maple(DD)	_shadscale(FD)	_picklewd/samphire(GD)	_joshua tree(HD)
_ASPEN DOUGLAS FIR(CZ)	_streamside(DE)	_horsebrush(FE)	_saltgrass(GE)	_MARSH COMMUNITY (IA)
_limber pine(CA)		_winter-fat(FF)	_alkali sacaton(GF)	
_douglas fir(CB)		_hop-sage/blkbrsh(FG)	_rabbitbrush(GG)	_ALKALI FLATS/MUD FLATS/DRY LAKE/ WASTELAND(KZ)
_lodgepole pine(CC)	_PLAINS/PRAIRIE(EZ)	_bud sagebrush(FH)		
_bristlecone pine(CD)	_grasslands(EA)	_mat saltbrush(FI)		
_aspen(CE)	X pinyon-juniper(EB)	_gray molly(FJ)		_CULTIVATED LAND(JZ)
_streamside(CD)	_streamside(EC)	_streamside(FK)		
_meadow grassland(CG)				

(Check COMMUNITY only if association cannot be determined)

Description: Pinyon, juniper, grasses, buckwheat, cliff rose, rabbit brush, sage.

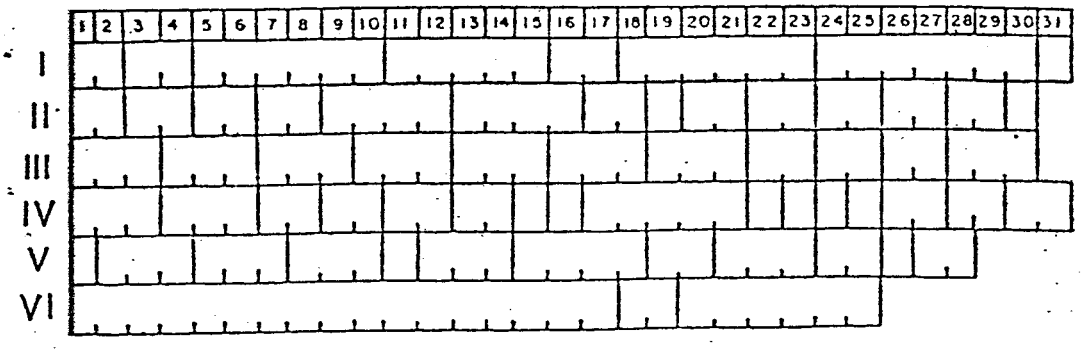
31. Next nearest plant association/distance: FK-200 m
32. Photograph Numbers [V/26] : AN-81-3-19,20; AN-81-4-19,20; AN-81-5- AN-81-6-
33. Recorded by: Asa S. Nielson
Survey Org. [V/27-28]: Cultural Services, A.S. Date: Jan. 28, 1981
Assisting Crew Members: Jim Kirkman, Jack Oviatt

34. Sponsoring Agency: Kaiser Steel Corp. Contract No.

SITE NO. _____

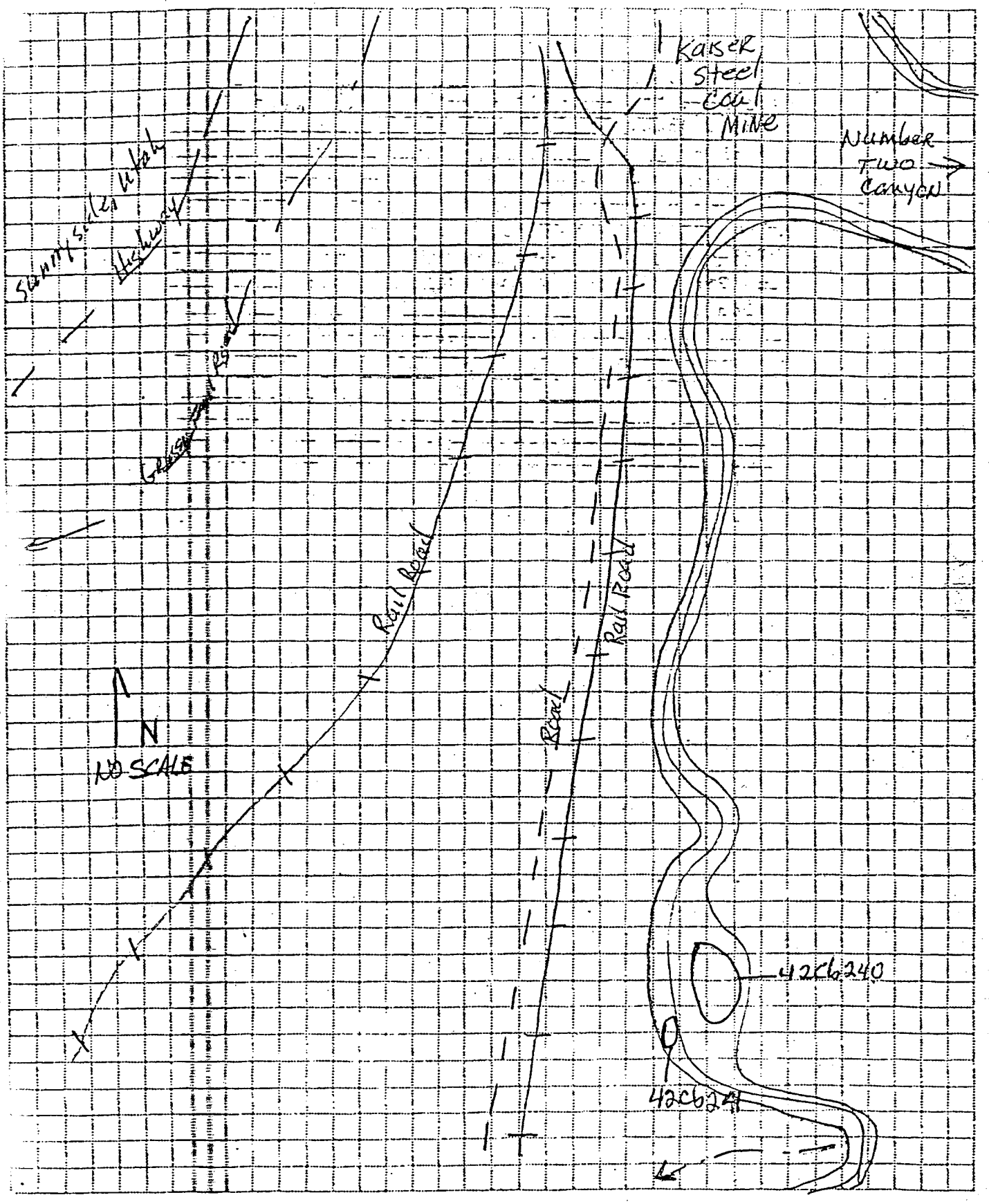
Site 42Cb24I
Rectangular stone outline on the South Side of the Site.

35. Encoding Form: (all entries are right justified)

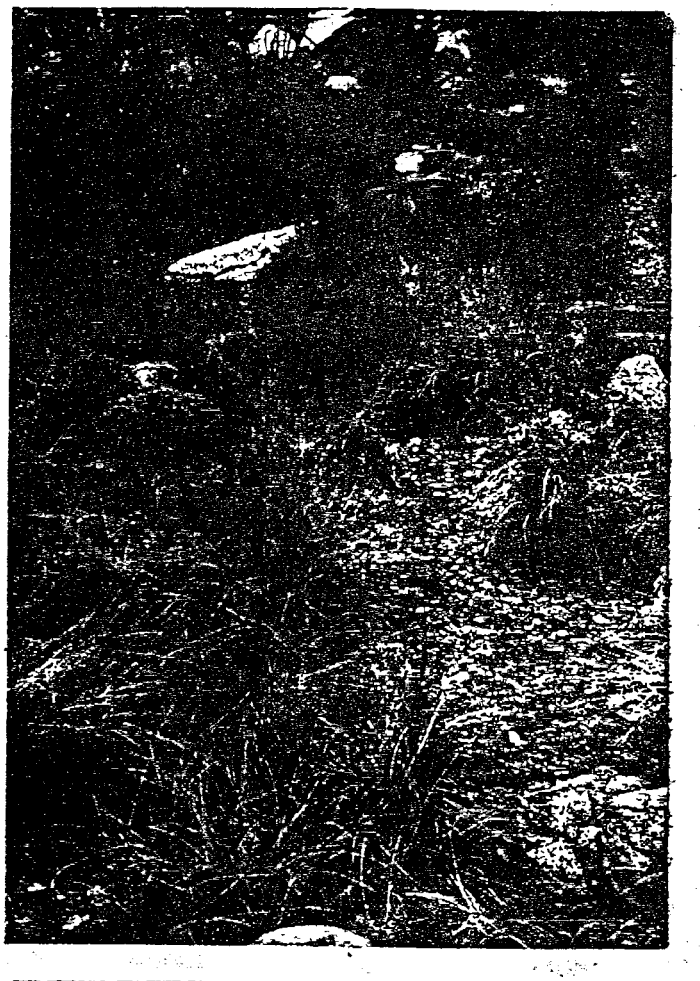


Form must be accompanied by a site map; photocopy of U.S.G.S. topo map with T., R., scale, and quad name; photographs of the site; and artifact sketches (if applicable).

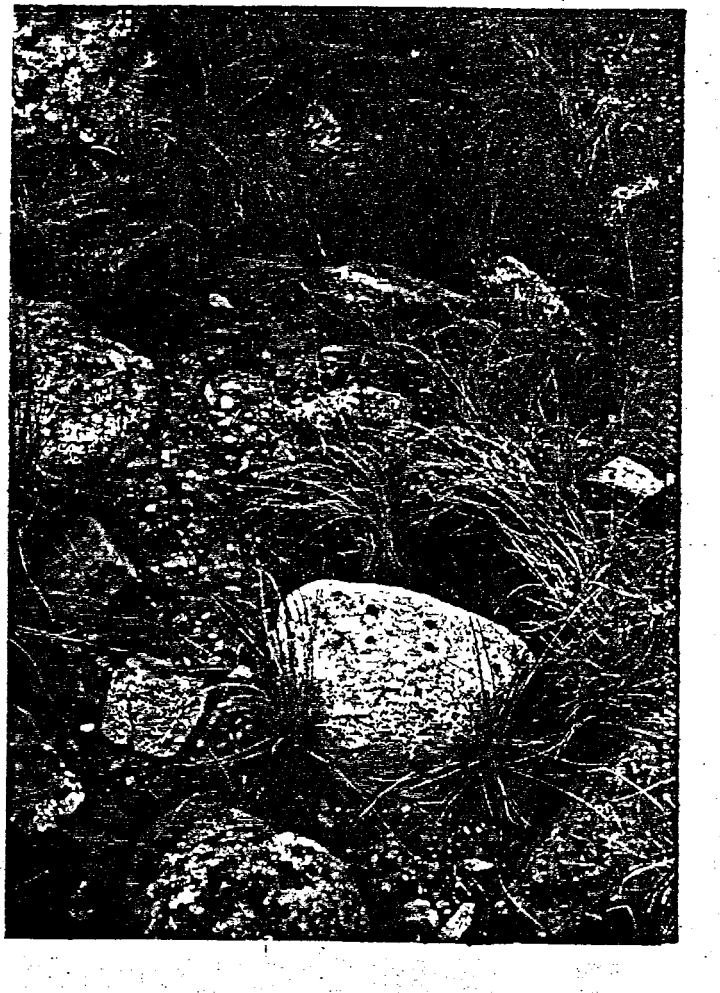
SITE NO. 42Cb 241

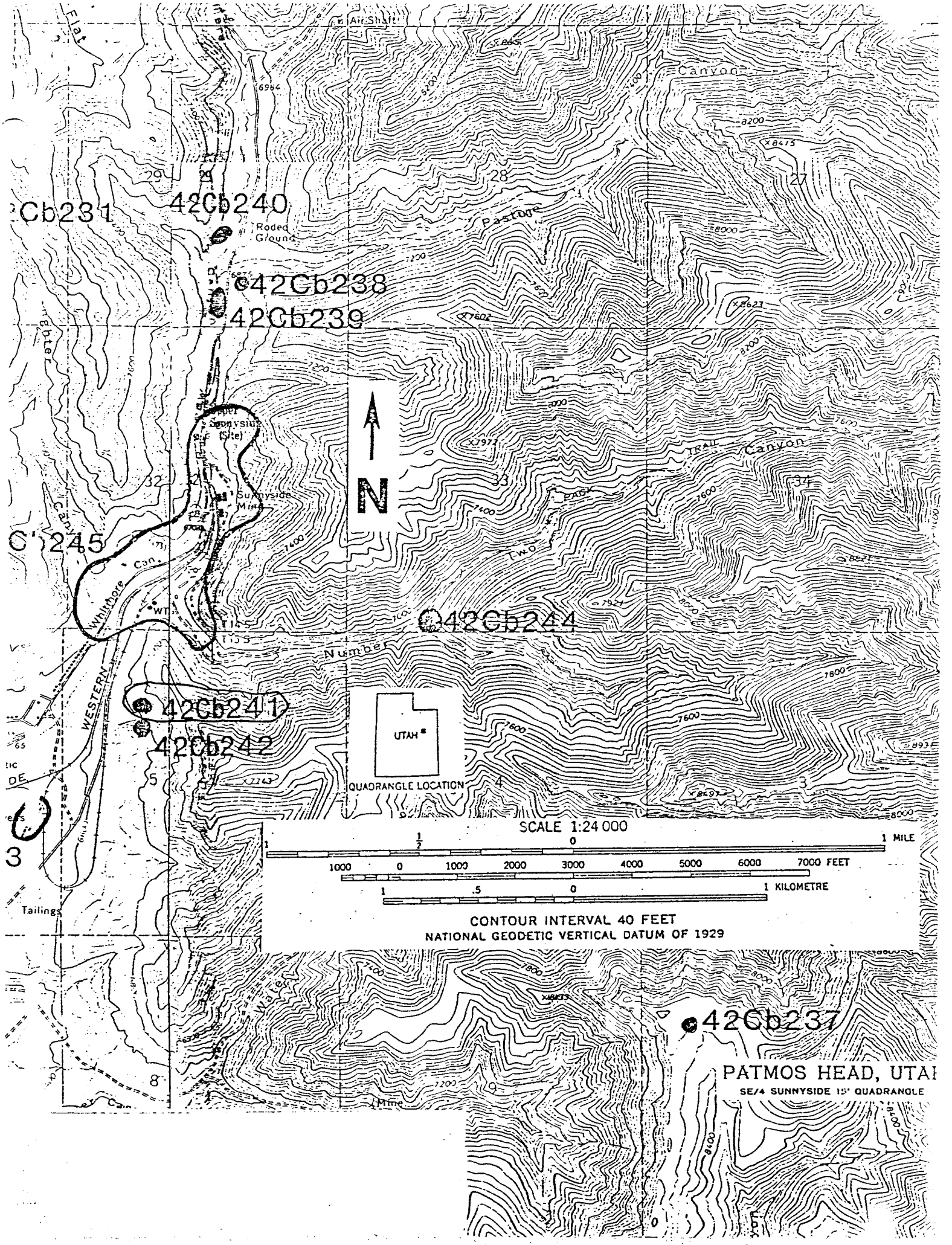


General site area at 42Cb241.



Part of round structure at 42Cb241.





Air Shaft
Canyon
Flat
42Cb240
Cb231
Roded Ground
Pasture
42Cb238
42Cb239
Upper Sunnyside (Site)
Sunnyside Mine
Canyon
Two Pack Trail
Canyon
Whitmore Can.
42Cb244
Number
42Cb241
42Cb242
Western
UTAH
QUADRANGLE LOCATION
SCALE 1:24 000
1 MILE
7000 FEET
1 KILOMETRE
CONTOUR INTERVAL 40 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929
Tailings
Water
42Cb237
PATMOS HEAD, UTAH
SE/4 SUNNYSIDE 15' QUADRANGLE

UTAH ANTIQUITIES SITE FORM
developed by cooperative agreement by:
Bureau of Land Management
Division of State History
University of Utah Archeological Center

1. Site No. [I/1-10] 42Cb242

2. County Carbon
3. Temp. No. K-12

4. Class: xPrehistoric x Historic Paleontologic
5. Cultural Site Type (interpreted function): Unk. (prehis.) quarry (historic)
6. Paleontological Site Type: Invertebrate; Vertebrate; Flora
7. Elevation [I/11-15] 6700 ft. X .3048 = 2042 m.
elevation source: Contour
8. UTM Grid: [I/16-30] zone 12 ; 553520 m E; 4378140 m N
9. [II/1-16] NE of SW of NW of Section 5 T. 14S , R. 15E
10. Map Reference: Sunnyside, Utah Series: 7.5 Date: 1972
11. Aerial Photo Data:

12. Site Location: About 1/3 mile due east of Sunnyside on ridge terrace. About 3/4 mile south of Kaiser Steel Coal office along railroad track. About 50 m up hill from tracks.

13. Land Owner [II/17-18]: Private, Kaiser Steel Corp.
BLM District/Forest [II/19]:
14. Site Name/Previous Designations: None
15. Description of Site: An historic quarry for stone block that has obliterated a prehistoric site of same type. Quarry about 20 m long X 9 m deep. On a terrace, on the west slope of a ridge above the pediment.

16. Artifacts: Artifacts should be described/drawn on a continuation sheet and their locations plotted on the site map.

CLASS		QUANTITY
Debitage	[II/30]	3
Bifaces	[III/1-9]	1
Scrapers	[III/1-9]	
Utilized Flakes		

CLASS		TYPE	QUANTITY
Ceramics	[III/10-21]		
Proj Pnt	[III/1-9]	side notch	1
Gnd Stn	[II/22-29]	retangular mano	1
Glass	[II/22-29]		
Metal	[II/22-29]		
Nails	[II/22-29]		
Cans	[II/22-29]		
Wood	[II/22-29]		
Other	[II/22-29]		

Description: Flakes and biface of gray chert. Projectile point of gray chert. Mano of purple quartzite.

17. Non-Structural Features: (describe and locate on site map) [III/22-27]

_hearth/firepit(HE) _rubble mound(RM) _earthen mound(EM) _trail/road(TR)
_midden(MD) _stone circle(SC) _burial(BU) _RR grade(RG)
_depression(DE) _rock alignment(RA) _pictograph(PI) _tram way/road(TW)
_water control(WC) _mine tailings(MT) _petroglyph(PE) _other(OT)

None

Description:

18. Structural Features: (describe and locate on site map) [III/28-IV/6]

CLASS	MATERIAL	QUANTITY
Single rm		
Multiple rm		
Granary		
Cist		
Pithouse		
Kiva		
Well		

CLASS	MATERIAL	QUANTITY
Tower		
Cairn		
Corral		
Dugout		
Kiln		
Monument		
Mine		

None

Description:

INCORPORATED
EFFECTIVE:
AUG 16 1995
UTAH DIVISION OIL, GAS AND MINING

19. Cultural Affiliation [IV/7-14]: Unknown
How Determined?
20. Site Dimensions : 4 m X 4 m; Area [IV/17-21]: sq
21. Were surface artifacts collected? x Yes; No; [IV/22] If yes, attach a continuation sheet describing sampling method used. gra
22. Estimated depth of fill [IV/23] :
Subsurface test? Yes; x No (Include location of test on site map,
Description:
23. Site Condition [IV/25] : Excellent; Good; Fair; X Poor
Agent of Impact: Erosion and historic road to quarry
24. Nat.Register Potential[V/1]: Significant(C); x Non-Significant(D)
Justification: Highly disturbed. What few tools observed were collected

25. Research Potential: None
26. Recommended Mitigation: None
27. Direction/Distance to Permanent Water [V/5-10] : West / 200 m
Type/Name of Water Source [V/11] : Grassy Trail Creek
Distance to nearest other Water Source [V/2-4]:
Type of other water source: Unknown
Distance to Cultivatable Soil [V/12-14] : 75 meters
28. Topographic Location (check one under each heading) [V/15-18]

PRIMARY LANDFORM
- mountain spine(A)
- hill/butte(B)
- tableland/mesa(C)
- X ridge(D)
- valley(E)
- plain(F)
- canyon(G)

POSITION ON LANDFORM
- top/crest/peak(A)
- X edge(B)
- slope(C)
- toe/foot/bottom(D)
- saddle/pass(E)
- bench/ledge(F)
- rimrock(G)
- interior(H)

DEPOSITIONAL ENVIRONMENT
- fan(A)
- talus(B)
- dune(C)
- stream terrace(D)
- playa(E)
- shore feature
  - extinct lake(F)
  - extant lake(G)
- alluvial plain(H)
- X coluvium(I)
- moraine(J)
- flood plain(K)
- marsh(L)
- landslide/slump(M)
- delta(N)
- island(O)
- cliff(P)
- outcrop(Q)
- stream bed(R)

SECONDARY POSITION
- top/crest/ridge(A)
- x edge(B)
- slope(C)
- toe/foot(D)
- cutbank(E)
- detached monolith(F)
- interior(G)
- step(H)
- riser(I)
- port.geo.feature(J)
- spring mound/bog(K)
- cave(L)
- alcove/shelter(M)
- patterned groun

Description: On a terrace on edge of ridge line about 50 feet above valley floor.

29. Degree/Aspect of slope [V/19-23] : 0-4 west
30. Vegetation COMMUNITY and association [V/24-25]:

- ALPINE GRASSLAND(AA)
- SPRUCE FIR(BZ)
- krumholz(BA)
- white fir-spruce(BB)
- ASPEN DOUGLAS FIR(CZ)
- limber pine(CA)
- douglas fir(CB)
- lodgepole pine(CC)
- bristlecone pine(CD)
- aspen(CE)
- streamside(CD)
- meadow grassland(CG)
- YELLOW PINE-OAK(DZ)
- ponderosa pine(DA)
- oakbrush(DB)
- mountain brush(DC)
- maple(DD)
- streamside(DE)
- PLAINS/PRAIRIE(EZ)
- grasslands(EA)
- X pinyon-juniper(EB)
- streamside(EC)
- COLD DESERT SHRUB(FZ)
- sagebrush(FA)
- small sagebrush(FB)
- little rabbitbrsh(FC)
- shadscale(FD)
- horsebrush(FE)
- winter-fat(FF)
- hop-sage/blkbrsh(FG)
- bud sagebrush(FH)
- mat saltbrush(FI)
- gray molly(FJ)
- streamside(FK)
- SALT DESERT SHRUB(GZ)
- greasewood(GA)
- grswood-shadscl(GB)
- seepweed(GC)
- picklewd/samphire(GD)
- saltgrass(GE)
- alkali sacaton(GF)
- rabbitbrush(GG)
- WARM DESERT SHRU
- desert saltbrush
- creosote bush(HB)
- creosote/bursag
- joshua tree(HD)
- MARSH COMMUNITY
- ALKALI FLATS/MUD FLATS/DRY LAKE/ WASTELAND(KZ)
- CULTIVATED LAND(JZ

(Check COMMUNITY only if association cannot be determined)

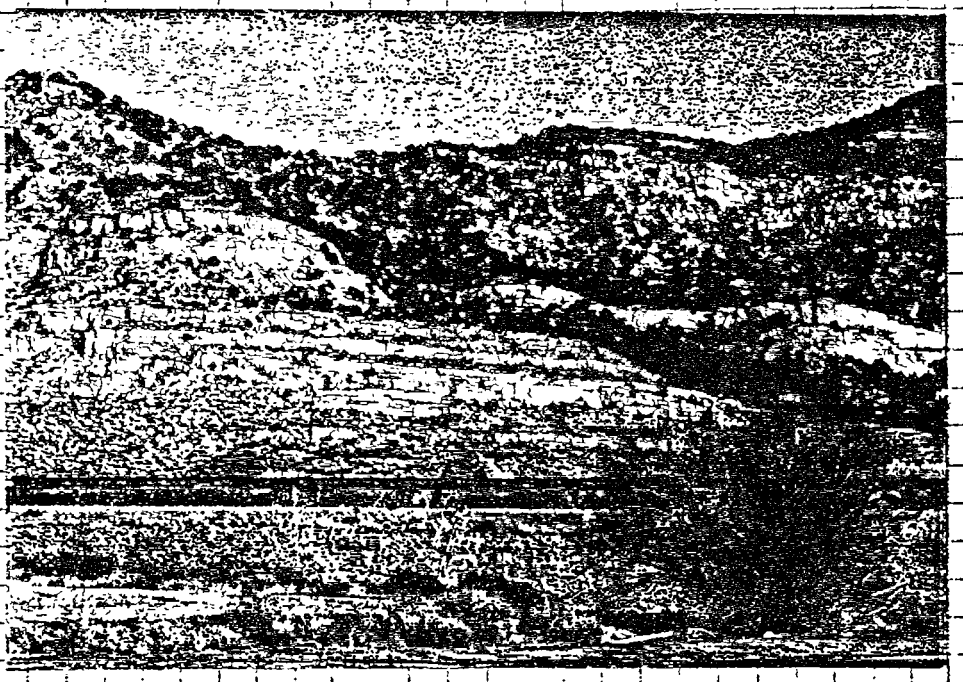
Description: Pinon, juniper, sage, buckwheat, ephedra, grasses.

31. Next nearest plant association/distance: FK-200 M
32. Photograph Numbers [V/26] : AN-81-5-3; AN-81-6-3.
33. Recorded by: Asa S. Nielson
Survey Org. [V/27-28]: Cultural Services, A.S. Date: Jan. 28, 1981
Assisting Crew Members: Jim Kirkman, Jack Oviatt

34. Sponsoring Agency: Kaiser Steel Corp Contract N

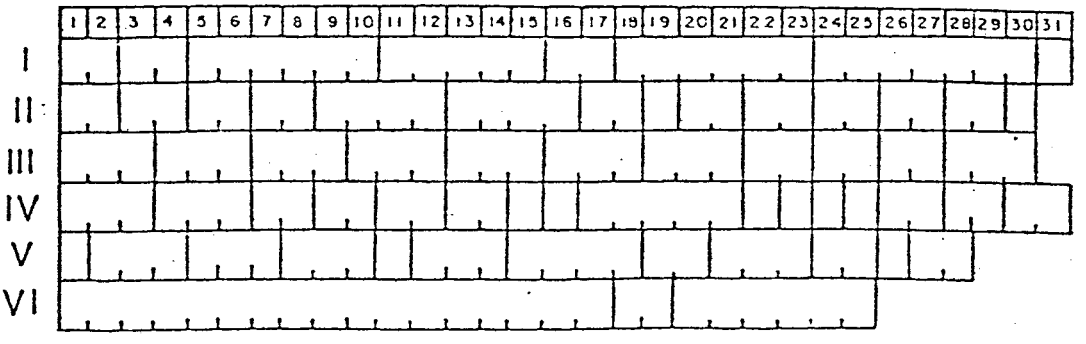
SITE NO. 42Cb242

SITE NO. _____



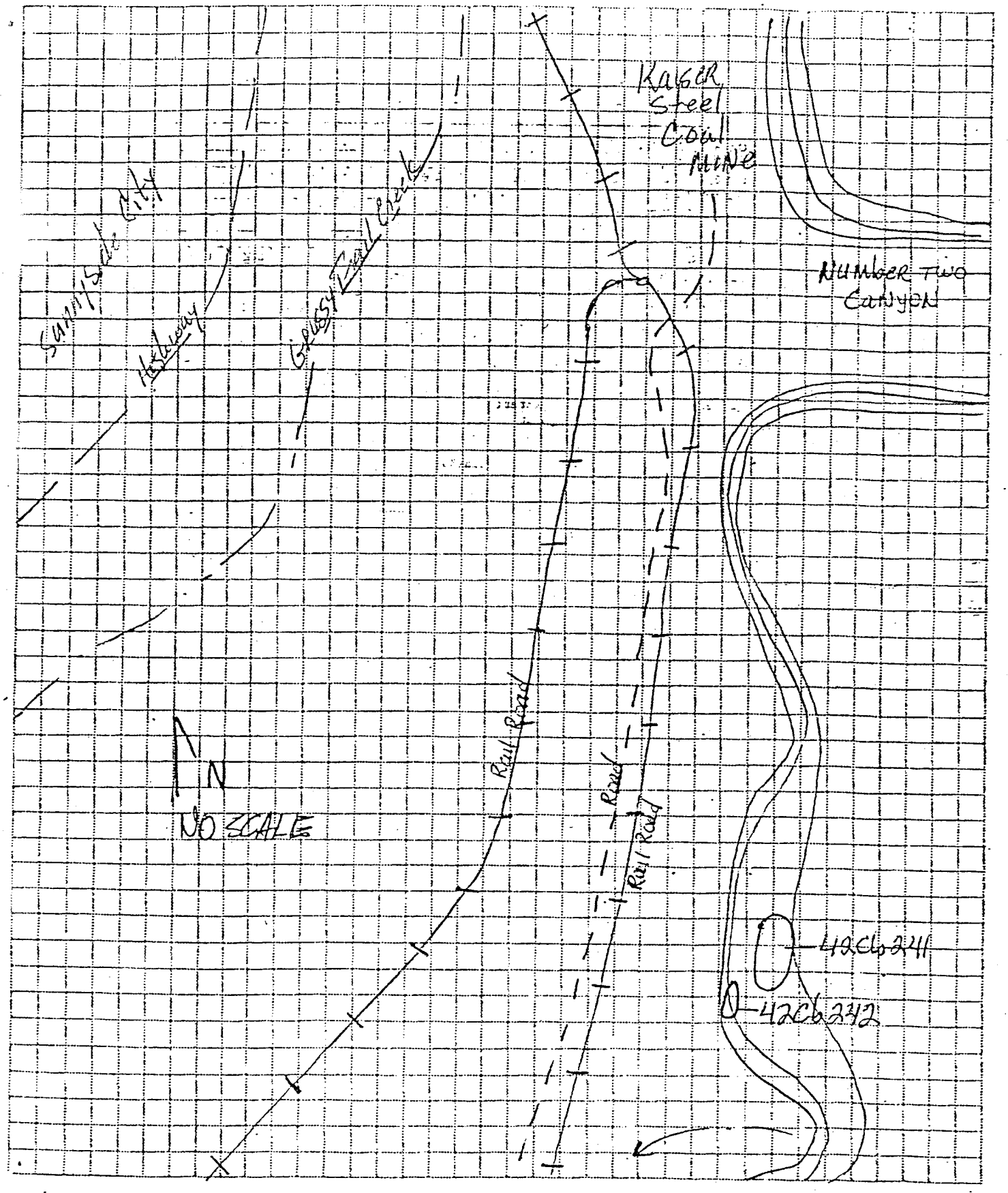
Site 42Cb242
General View of the Site
from the Road, Looking
East.

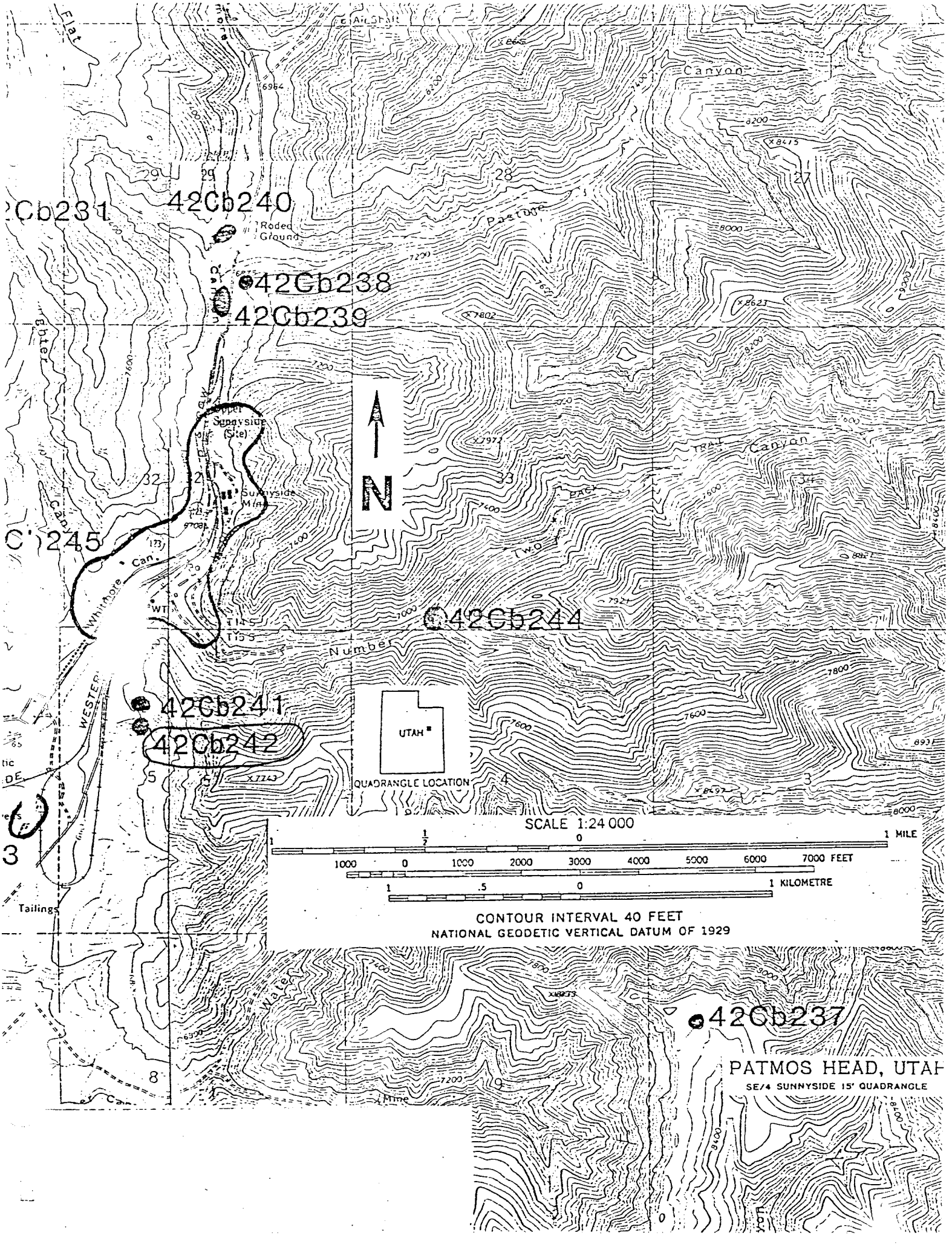
35. Encoding Form: (all entries are right justified)



Form must be accompanied by a site map; photocopy of U.S.G.S. topo map with T., R., scale, and quad name; photographs of the site; and artifact sketches (if applicable).

 SITE NO. 42Cb 242





42Cb240
42Cb238
42Cb239
42Cb244
42Cb241
42Cb242
42Cb237
Roded Ground
Upper Sunnyside (Site)
Sunnyside Mine
Canyon
Pasture
Number
Two
Whitmore Can.
WESTER
Tailings
Water
Mine
N
UTAH
QUADRANGLE LOCATION
SCALE 1:24 000
1 MILE
7000 FEET
1 KILOMETRE
CONTOUR INTERVAL 40 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929
PATMOS HEAD, UTAH
SE/4 SUNNYSIDE 15' QUADRANGLE

UTAH ANTIQUITIES SITE FORM
developed by cooperative agreement by:
Bureau of Land Management
Division of State History
University of Utah Archeological Center

1. Site No. [I/1-10] 42Cb243

2. County Carbon
3. Temp. No. ____

4. Class: ___Prehistoric x Historic ___Paleontologic
5. Cultural Site Type (interpreted function): Coke Kilns
6. Paleontological Site Type: ___Invertebrate; ___Vertebrate; ___Flora
7. Elevation [I/11-15] 6580 ft. X .3048 = 2005 m.
elevation source: Contour
8. UTM Grid: [I/16-30] zone 12 ; 553000 m E; 4377500 m N
9. [II/1-16] E½ of NE of SE of Section 6 T. ____, R. ____
10. Map Reference: Sunnyside, Utah Series: 7.5 Date: 1972
11. Aerial Photo Data: ____

12. Site Location: Take highway to Sunnyside City - stop at athletic field and walk 400 meters southeast to edge of tailing area.

13. Land Owner [II/17-18]: Private-Kaiser Steel Corp.
BLM District/Forest [II/19]: ____
14. Site Name/Previous Designations: Kaiser Steel Coke Ovens
15. Description of Site: This site is the location of 25 coke ovens. Ovens are beehive shaped inside-level top for access for "charging". North section of ovens was impacked for road. Ovens are about 100 meters long with several layers of fire brick

16. Artifacts: Artifacts should be described/drawn on a continuation sheet and their locations plotted on the site map.

CLASS	QUANTITY
Debitage [II/30]	____
Bifaces [III/1-9]	____
Scrapers [III/1-9]	____
Utilized Flakes	____

CLASS	TYPE	QUANTITY
Ceramics [III/10-21]	____	____
Proj Pnt [III/1-9]	____	____
Gnd Stn [II/22-29]	____	____
Glass [II/22-29]	____	____
Metal [II/22-29]	____	____
Nails [II/22-29]	____	____
Cans [II/22-29]	____	____
Wood [II/22-29]	____	____
Other [II/22-29]	____	____

Description: ____

17. Non-Structural Features: (describe and locate on site map) [III/22-27]

_hearth/firepit(HE)	_rubble mound(RM)	_earthen mound(EM)	_trail/road(TR)
_midden(MD)	_stone circle(SC)	_burial(BU)	_RR grade(RG)
_depression(DE)	_rock alignment(RA)	_pictograph(PI)	_tram way/road(TW)
_water control(WC)	_mine tailings(MT)	_petroglyph(PE)	_other(OT)

Description: none

18. Structural Features: (describe and locate on site map) [III/28-IV/6]

CLASS	MATERIAL	QUANTITY
Single rm	____	____
Multiple rm	____	____
Granary	____	____
Cist	____	____
Pithouse	____	____
Kiva	____	____
Well	____	____

CLASS	MATERIAL	QUANTITY
Tower	____	____
Cairn	____	____
Corral	____	____
Dugout	____	____
Kiln	Brick, Iron, Concrete	
Monument	____	____
Mine	____	____

Description: Most are in good shape - some vandalizm for the brick. Some still contain old coke remains. All steel doors are missing.

SITE NO. 42Cb243

19. Cultural Affiliation [IV/7-14]: Historic American
How Determined? Mine Records
20. Site Dimensions : ____m X ____m; Area [IV/17-21]: ____sq
21. Were surface artifacts collected? ___Yes; x No; [IV/22] If yes, attach a continuation sheet describing sampling method used.
22. Estimated depth of fill [IV/23] : ____
Subsurface test? ___Yes; x No (Include location of test on site ma
Description:
23. Site Condition [IV/25] : ___Excellent; ___Good; ___Fair; ___Poor
Agent of Impact: Vandalism, removal for brick and tailing activity
24. Nat. Register Potential [V/1]: x Significant (C); ___Non-Significant (D)
Justification: Still in good condition-potintial for historic mine activity and architecture studies

25. Research Potential: Yes
26. Recommended Mitigation: preserve by avoidence
27. Direction/Distance to Permanent Water [V/5-10] : west / 400 m
Type/Name of Water Source [V/11] : Grassy Trail Creek.
Distance to nearest other Water Source [V/2-4]: ____
Type of other water source: ____
Distance to Cultivatable Soil [V/12-14] : ____
28. Topographic Location (check one under each heading) [V/15-18]

PRIMARY LANDFORM
_mountain spine(A)
_hill/butte(B)
_tableland/mesa(C)
_ridge(D)
X valley(E)
_plain(F)
_canyon(G)

POSITION ON LANDFORM
_top/crest/peak(A)
_edge(B)
_slope(C)
_toe/foot/bottom(D)
_saddle/pass(E)
_bench/ledge(F)
_rimrock(G)
X interior(H)

DEPOSITIONAL ENVIRONMENT
_fan(A)
_talus(B)
_dune(C)
_stream terrace(D)
_playa(E)
shore feature
_extinct lake(F)
_extant lake(G)
X alluvial plain(H)
_coluvium(I)
_moraine(J)
_flood plain(K)
_marsh(L)
_landslide/slump(M)
_delta(N)
_island(O)
_cliff(P)
_outcrop(Q)
_stream bed(R)

SECONDARY POSITION
_top/crest/ridge(A)
_edge(B)
_slope(C)
_toe/foot(D)
_cutbank(E)
_detached monolith(F)
X interior(G)
_step(H)
_riser(I)
_port.geo.feature(J)
_spring mound/bog(K)
_cave(L)
_alcove/shelter(M)
_patterned ground(N)

Description: On the alluvial sediment of Grassy Trail Creek, at mouth of Whitmore Canyon

29. Degree/Aspect of slope [V/19-23] : 0
30. Vegetation COMMUNITY and association [V/24-25]:

_ALPINE GRASSLAND(AA)
_SPRUCE FIR(BZ)
_krumholz(BA)
_white fir-spruce(BB)
_ASPEN DOUGLAS FIR(CZ)
_limber pine(CA)
_douglas fir(CB)
_lodgepole pine(CC)
_bristlecone pine(CD)
_aspen(CE)
_streamside(CD)
_meadow grassland(CG)

_YELLOW PINE-OAK(DZ)
_ponderosa pine(DA)
_oakbrush(DB)
_mountain brush(DC)
_maple(DD)
_streamside(DE)

_PLAINS/PRAIRIE(EZ)
_grasslands(EA)
_pinyon-juniper(EB)
_streamside(EC)

_COLD DESERT SHRUB(FZ)
_sagebrush(FA)
_small sagebrush(FB)
_little rabbitbrsh(FC)
_shadscale(FD)
_horsebrush(FE)
_winter-fat(FF)
_hop-sage/blkbrsh(FG)
_bud sagebrush(FH)
_mat saltbrush(FI)
_gray molly(FJ)
_streamside(FK)

_SALT DESERT SHRUB(GZ)
_greasewood(GA)
_grswood-shadscl(GB)
_seepweed(GC)
_picklewd/samphire(GD)
_saltgrass(GE)
_alkali sacaton(GF)
_rabbitbrush(GG)

_WARM DESERT SHRU
_desert saltbrush
_creosote bush(HB)
_creosote/bursage(
_joshua tree(HD)
_MARSH COMMUNITY(
_ALKALI FLATS/MUD FLATS/DRY LAKE/ WASTELAND(KZ)
_CULTIVATED LAND(JZ)

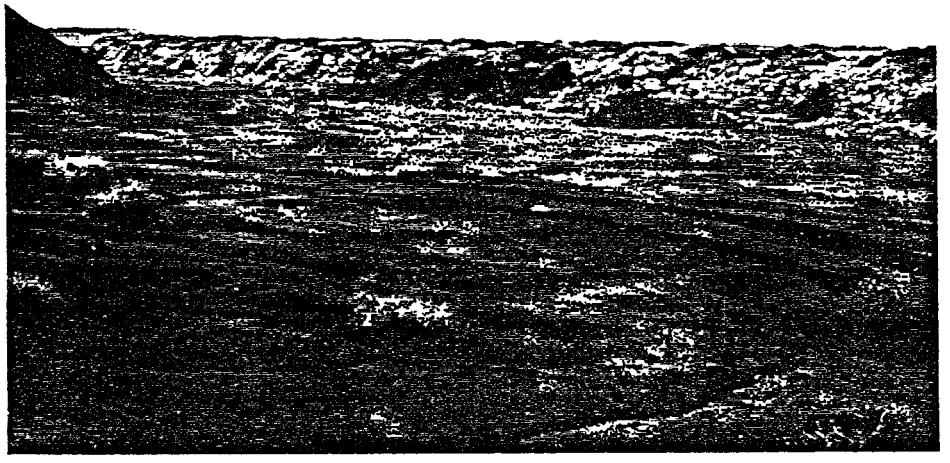
(Check COMMUNITY only if association cannot be determined)

Description: Area completely leveled and developed, likely a former Pinyon-juniper (EB) and streamside (FK) zone.

31. Next nearest plant association/distance: EB-500 meters
32. Photograph Numbers [V/26] : ____
33. Recorded by: David Merril
Survey Org. [V/27-28]: State History-Library Date: ____
Assisting Crew Members: none

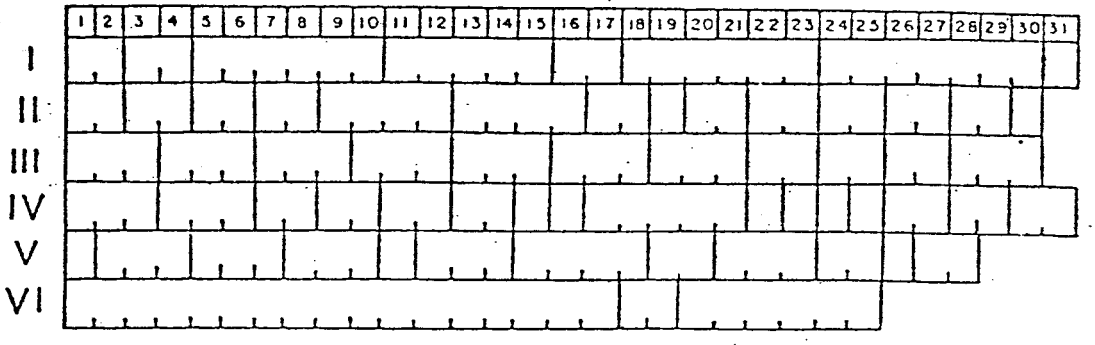
34. Sponsoring Agency: Kaiser Steel Contract No. ____

SITE NO. _____

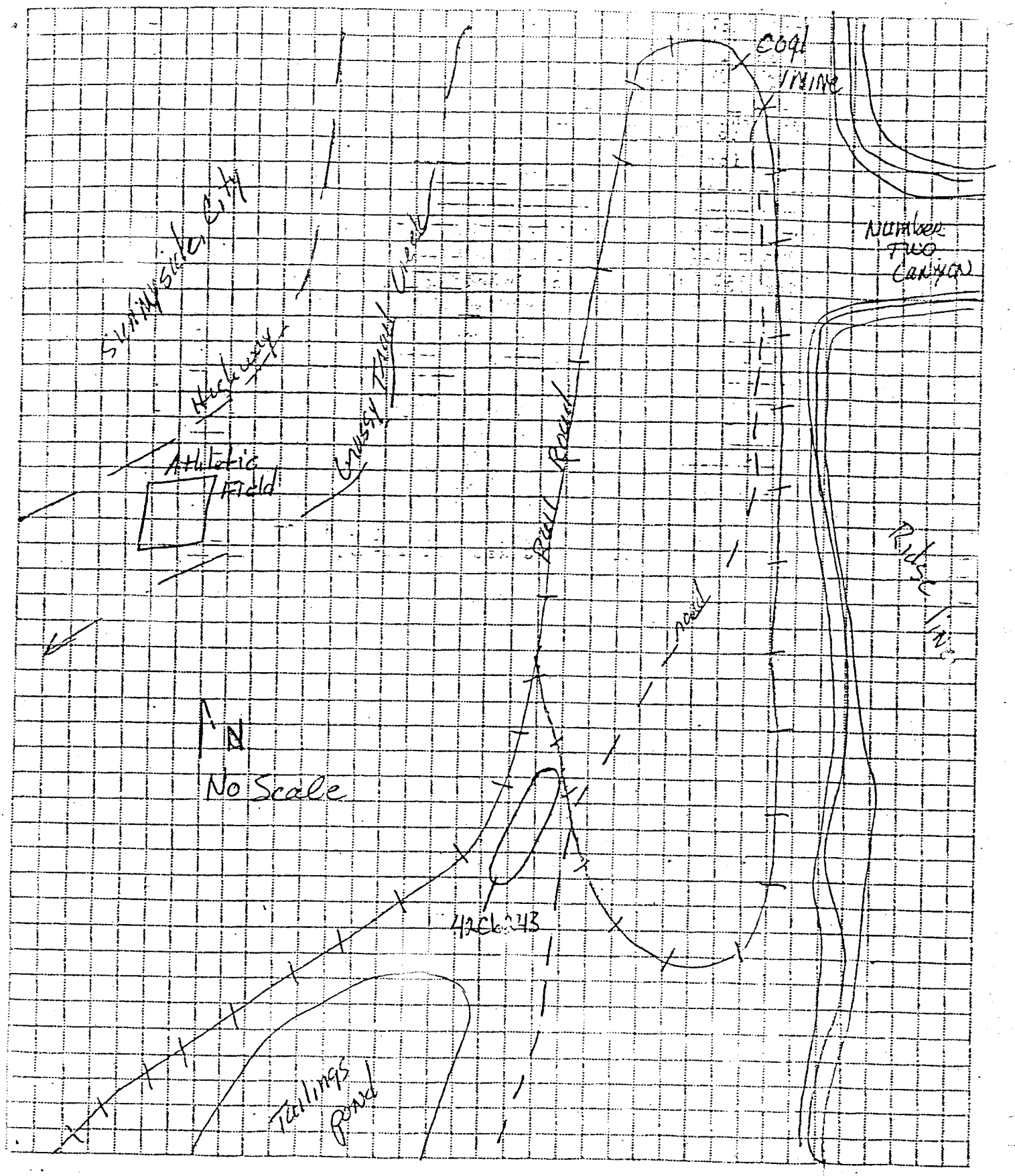


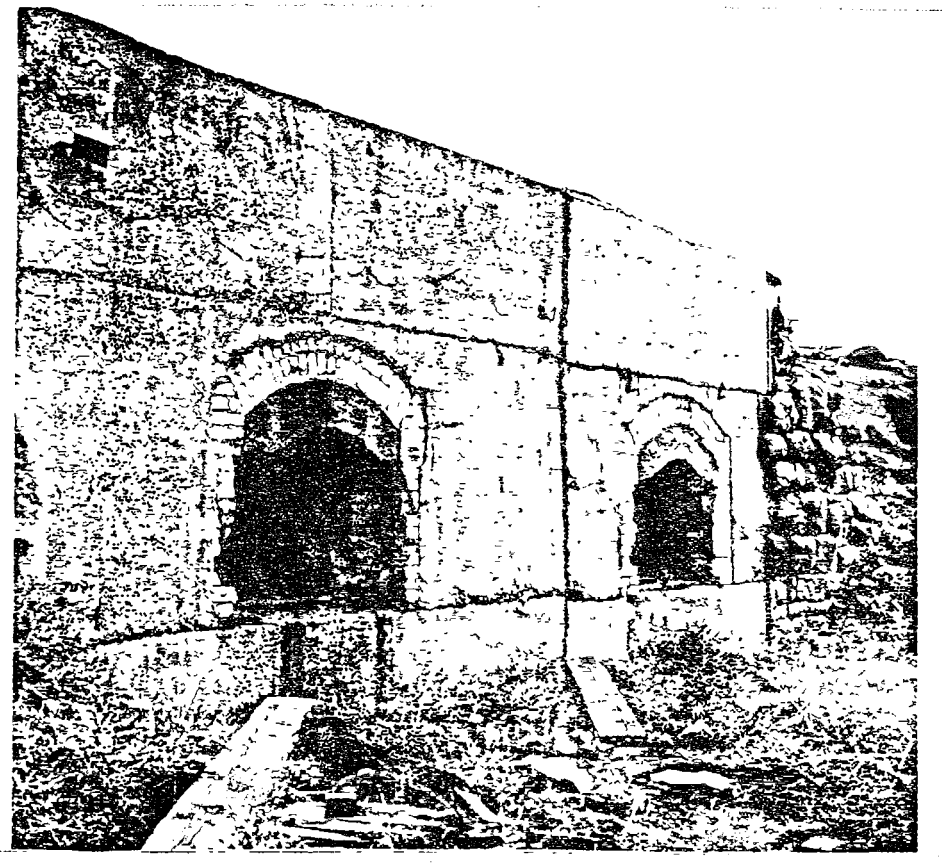
Site 42Cb243
General View of the Ovens
Looking Southwest

35. Encoding Form: (all entries are right justified)

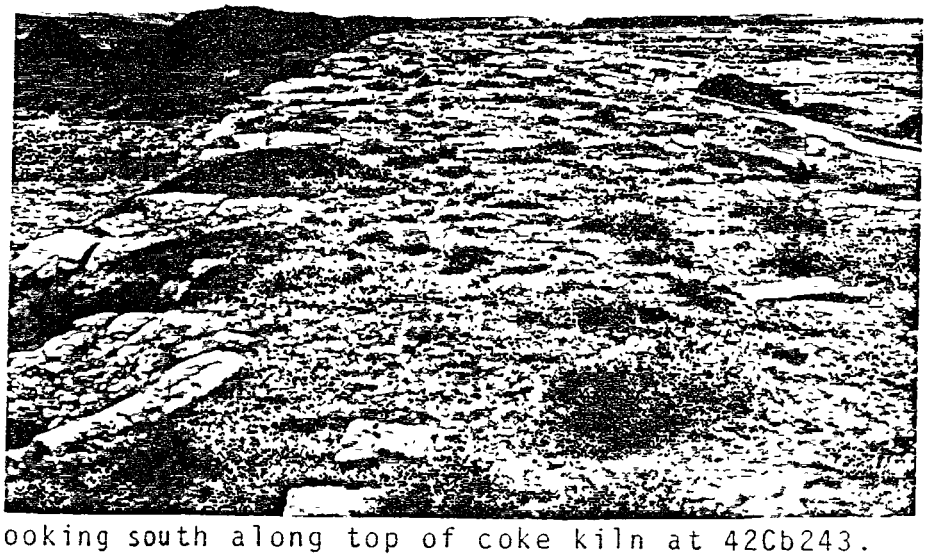


Form must be accompanied by a site map; photocopy of U.S.G.S. topo map with T., R., scale, and quad name; photographs of the site; and artifact sketches (if applicable).

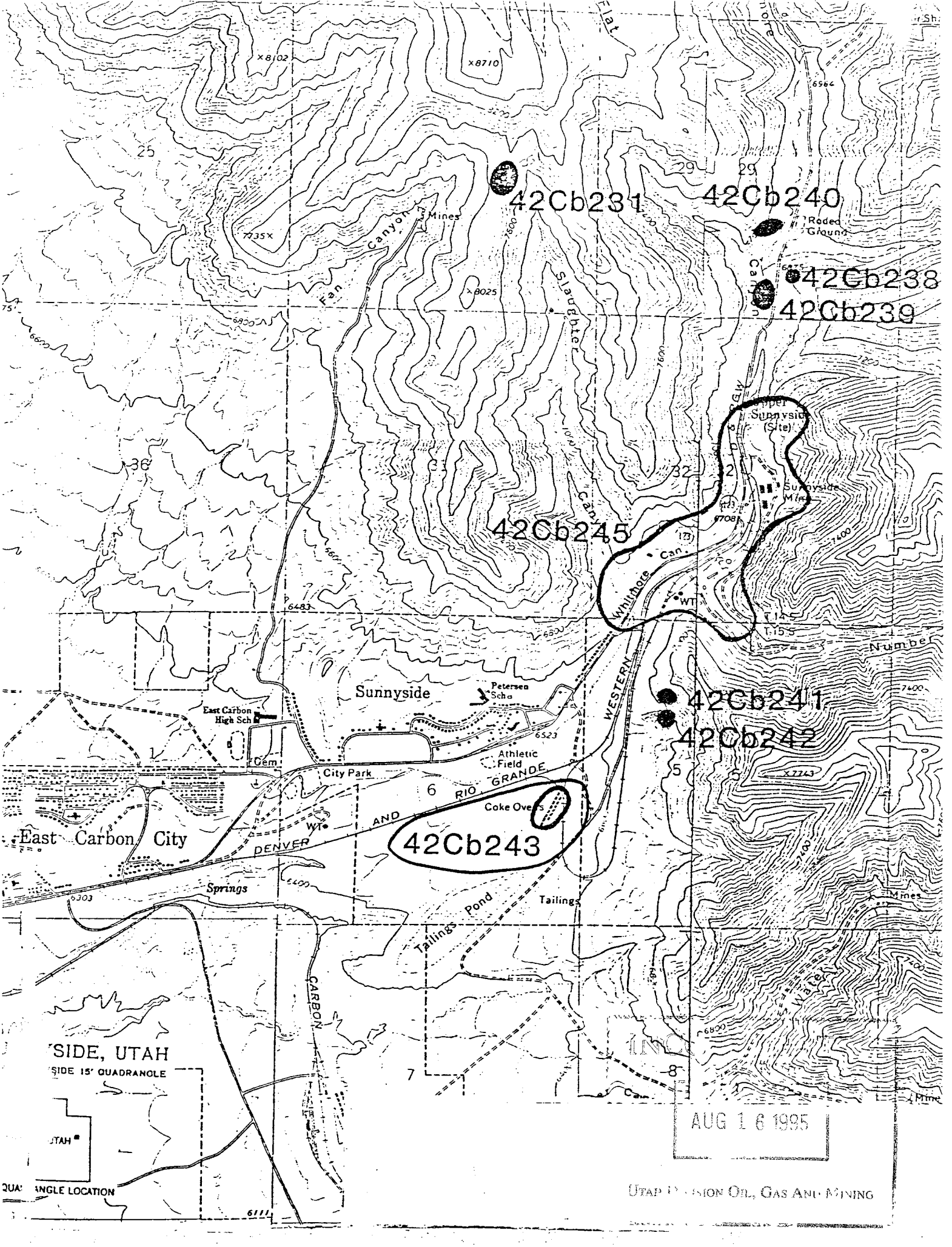

Coal Mine
Number Two Canyon
Sunnyside City
Highway
Grassy Trail Creek
Athletic Field
Rail Road
Ridge line
road
N
No Scale
42Cb243
Tailings Pond



Example of coke kiln at 42Cb243.



Looking south along top of coke kiln at 42Cb243.


42Cb231
42Cb240
42Cb238
42Cb239
42Cb245
42Cb241
42Cb242
42Cb243
Fan Canyon
Mines
Slaughter
Canyon
Roded Ground
Upper Sunnyside (Site)
Sunnyside Mine
Whitmore Can.
WESTERN
Sunnyside
Petersen Sch
East Carbon High Sch
Athletic Field
City Park
Coke Ovens
DENVER AND RIO GRANDE
East Carbon City
Springs
Tailings
Tailings Pond
CARBON
Number
Mines
Water
SIDE, UTAH
SIDE 15' QUADRANGLE
UTAH
ANGLE LOCATION
AUG 1 6 1995
UTAH DIVISION OIL, GAS AND MINING

UTAH ANTIQUITIES SITE FORM
developed by cooperative agreement by:
Bureau of Land Management
Division of State History
University of Utah Archeological Center

1. Site No. [I/1-10] 42Cb244

2. County Carbon
3. Temp. No. ____

4. Class: __ Prehistoric x Historic __ Paleontologic
5. Cultural Site Type (interpreted function): Water System
6. Paleontological Site Type: ___ Invertebrate; ___ Vertebrate; ___ Flora
7. Elevation [I/11-15] 7000 ft. X .3048 = 2133 m.
elevation source: contour
8. UTM Grid: [I/16-30] zone 12 ; 555250 m E; 4378550 m N
9. [II/1-16] SW of SE of SW of Section 33 T. ____, R. ____
10. Map Reference: Patmos Head, Utah Series: 7.5 Date: 1972
11. Aerial Photo Data: ____
12. Site Location: Take highway to Sunnyside Mine, to low road up into Number Two Canyon. About 3/4 mile-site is a major fork in Number two Canyon.

13. Land Owner [II/17-18]: Private-Kaiser Steel Corp.
BLM District/Forest [II/19]: ____
14. Site Name/Previous Designations: Sunnyside Water System
15. Description of Site: The site is at the confluence of a southeast tributary to Number Two Canyon. Consist of a 2.6 meter high aqueduct over the road, aqueduct is about 10 meters long. A concrete reservior, 4 meters deep and 10 meters in diameter. A block and concrete pump house is on the north side of the reservior.

16. Artifacts: Artifacts should be described/drawn on a continuation sheet and their locations plotted on the site map.

CLASS	QUANTITY
Debitage [II/30]	____
Bifaces [III/1-9]	____
Scrapers [III/1-9]	____
Utilized Flakes	____

CLASS	TYPE	QUANTITY
Ceramics [III/10-21]	____	____
Proj Pnt [III/1-9]	____	____
Gnd Stn [II/22-29]	____	____
Glass [II/22-29]	____	____
Metal [II/22-29]	____	____
Nails [II/22-29]	____	____
Cans [II/22-29]	____	____
Wood [II/22-29]	____	____
Other [II/22-29]	____	____

Description: Only recent beer bottles and pop top cans.

17. Non-Structural Features: (describe and locate on site map) [III/22-27]

_hearth/firepit(HE)	_rubble mound(RM)	_earthen mound(EM)	_trail/road(TR)
_midden(MD)	_stone circle(SC)	_burial(BU)	_RR grade(RG)
_depression(DE)	_rock alignment(RA)	_pictograph(PI)	_tram way/road(TW)
X water control(WC)	_mine tailings(MT)	_petroglyph(PE)	_other(OT)

Description: Old Sunnyside-Range Creek water aqueduct and reservior

18. Structural Features: (describe and locate on site map) [III/28-IV/6]

CLASS	MATERIAL	QUANTITY	CLASS	MATERIAL	QUANTITY
Single rm	____	____	Tower	____	____
Multiple rm	____	____	Cairn	____	____
Granary	____	____	Corral	____	____
Cist	____	____	Dugout	____	____
Pithouse	____	____	Kiln	____	____
Kiva	____	____	Monument	____	____
Well	____	____	Mine	____	____

Description: none

SITE NO. 42Sa Cb244

19. Cultural Affiliation [IV/7-14]: Historic American
How Determined? Mine and City Records
20. Site Dimensions : ____m X ____m; Area [IV/17-21]: ____sq
21. Were surface artifacts collected? __Yes; X No; [IV/22] If yes, attach a continuation sheet describing sampling method used.
22. Estimated depth of fill [IV/23] : ____
Subsurface test? __Yes; X No (Include location of test on site m
Description:
23. Site Condition [IV/25] : __Excellent; __Good; X Fair; __Poor
Agent of Impact: Natural Deteriation, Vandalism
24. Nat.Register Potential[V/1]: __Significant(C); __Non-Significant(D)
Justification:

25. Research Potential:
26. Recommended Mitigation:
27. Direction/Distance to Permanent Water [V/5-10] : ____/____m
Type/Name of Water Source [V/11] :
Distance to nearest other Water Source [V/2-4]:
Type of other water source:
Distance to Cultivatable Soil [V/12-14] :
28. Topographic Location (check one under each heading) [V/15-18]

PRIMARY LANDFORM
_mountain spine(A)
_hill/butte(B)
_tableland/mesa(C)
_ridge(D)
_valley(E)
_plain(F)
X canyon(G)

POSITION ON LANDFORM
_top/crest/peak(A)
X edge(B)
_slope(C)
_toe/foot/bottom(D)
_saddle/pass(E)
_bench/ledge(F)
_rimrock(G)
_interior(H)

DEPOSITIONAL ENVIRONMENT
_fan(A)
_talus(B)
_dune(C)
_stream terrace(D)
_playa(E)
shore feature
_extinct lake(F)
_extant lake(G)
X alluvial plain(H)
_coluvium(I)
_moraine(J)
_flood plain(K)
_marsh(L)
_landslide/slump(M)
_delta(N)
_island(O)
_cliff(P)
_outcrop(Q)
_stream bed(R)

SECONDARY POSITION
_top/crest/ridge(A)
X edge(B)
_slope(C)
_toe/foot(D)
_cutbank(E)
_detached monolith(F)
_interior(G)
_step(H)
_riser(I)
_port.geo.feature(J)
_spring mound/bog(K)
_cave(L)
_alcove/shelter(M)
_patterned gro

Description: Occupies the edge of an alluvial slope and spand over the south fork of Number Two Canyon.

29. Degree/Aspect of slope [V/19-23] : level
30. Vegetation COMMUNITY and association [V/24-25]:

_ALPINE GRASSLAND(AA)
_SPRUCE FIR(BZ)
_krumholz(BA)
_white fir-spruce(BB)
_ASPEN DOUGLAS FIR(CZ)
_limber pine(CA)
_douglas fir(CB)
_lodgepole pine(CC)
_bristlecone pine(CD)
_aspen(CE)
_streamside(CD)
_meadow grassland(CG)

_YELLOW PINE-OAK(DZ)
_ponderosa pine(DA)
_oakbrush(DB)
X mountain brush(DC)
_maple(DD)
_streamside(DE)
_PLAINS/PRAIRIE(EZ)
_grasslands(EA)
X pinyon-juniper(EB)
_streamside(EC)

_COLD DESERT SHRUB(FZ)
_sagebrush(FA)
_small sagebrush(FB)
_little rabbitbrsh(FC)
_shadscale(FD)
_horsebrush(FE)
_winter-fat(FF)
_hop-sage/blkbrsh(FG)
_bud sagebrush(FH)
_nat saltbrush(FI)
_gray molly(FJ)
_streamside(FK)

_SALT DESERT SHRUB(GZ)
_greasewood(GA)
_grswood-shadscl(GB)
_seepweed(GC)
_picklewd/samphire(GD)
_saltgrass(GE)
_alkali sacaton(GF)
_rabbitbrush(GG)

_WARM DESERT SHRI
_desert saltbrush(
_creosote bush(HB)
_creosote/bursag
_joshua tree(HD)
_MARSH COMMUNITY
_ALKALI FLATS/MUD FLATS/DRY LAKE/ WASTELAND(KZ)
_CULTIVATED LAND(J

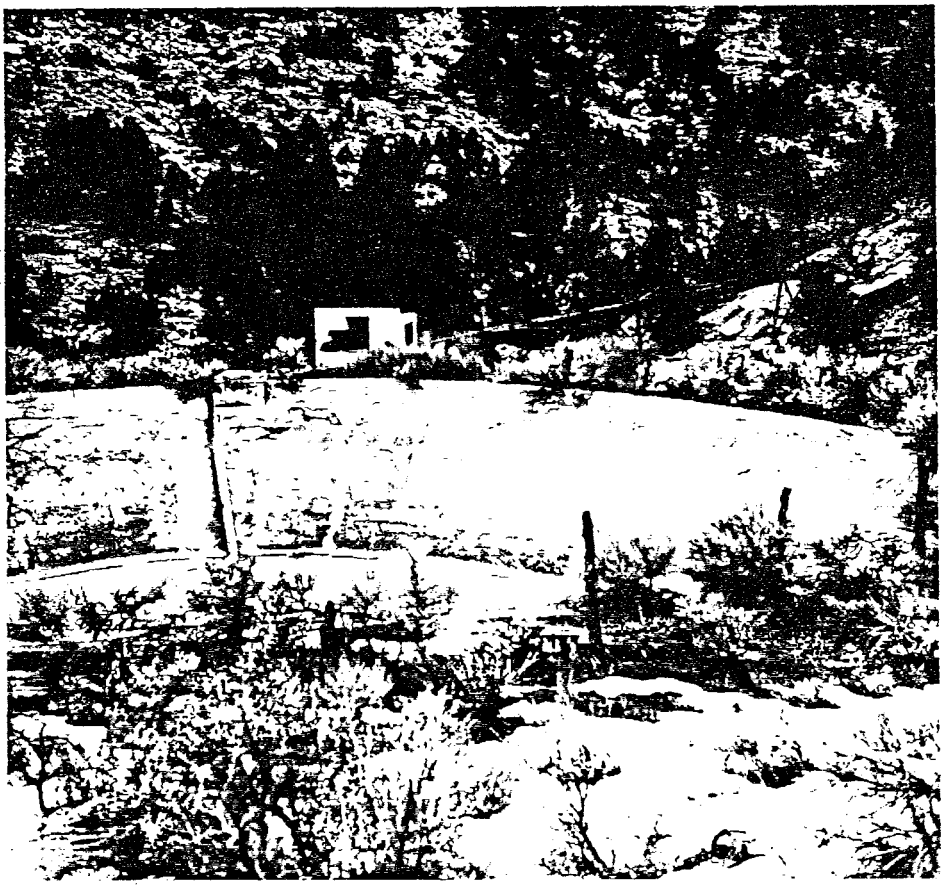
(Check COMMUNITY only if association cannot be determined)

Description: Pinyon-juniper, oak brush, wild rose, sage, rabbit brush, and ephedrice.

31. Next nearest plant association/distance: 200 M DC
32. Photograph Numbers [V/26] : AN-81-3, 8-10
33. Recorded by: Asa S. Nielson
Survey Org. [V/27-28]: Antiquities Section Date: 02/04/81
Assisting Crew Members: Jack Oviatt, Jim Kirkman

34. Sponsoring Agency: Kaiser Steel Contract No.

SITE NO. 42Cb244



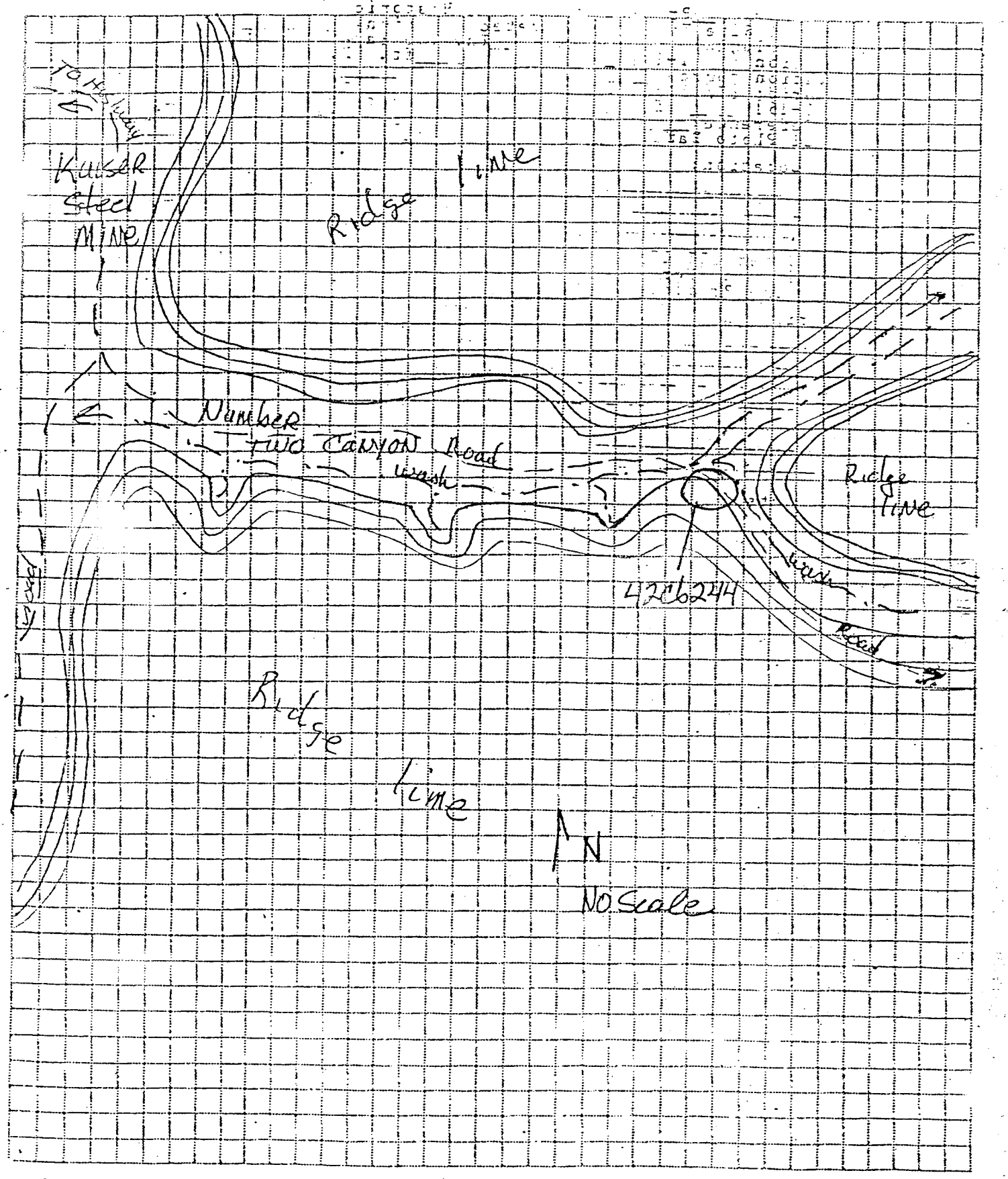
Site 42Cb244
General View of the Site
Reservoir and Aquaduct.

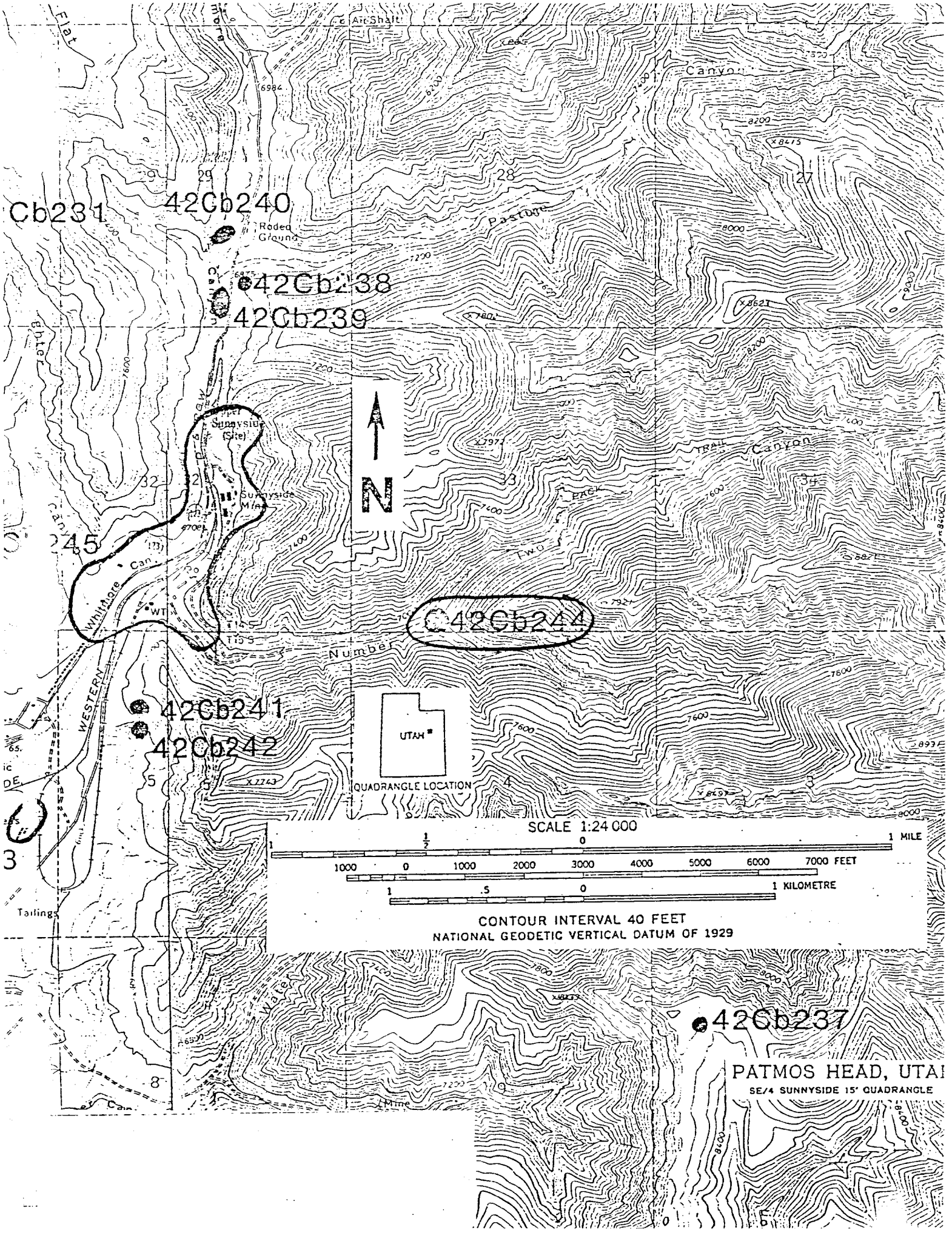
35. Encoding Form: (all entries are right justified)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
I																															
II																															
III																															
IV																															
V																															
VI																															

Form must be accompanied by a site map; photocopy of U.S.G.S. topo map with T., R., scale, and quad name; photographs of the site; and artifact sketches (if applicable).

 SITE NO. 42Cb 244





Cb231
42Cb240
Roded Ground
42Cb238
42Cb239
Sunnyside (Site)
Sunnyside Mine
Whitmore Can.
WT
42Cb244
Number
42Cb241
42Cb242
UTAH
QUADRANGLE LOCATION
SCALE 1:24 000
1 MILE
7000 FEET
1 KILOMETRE
CONTOUR INTERVAL 40 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929
42Cb237
PATMOS HEAD, UTAH
SE/4 SUNNYSIDE 15' QUADRANGLE

UTAH ANTIQUITIES SITE FORM
developed by cooperative agreement by:
Bureau of Land Management
Division of State History
University of Utah Archeological Center

1. Site No. [I/1-10] 42Cb245

2. County Carbon

3. Temp. No. ____

4. Class: ___Prehistoric x Historic ___Paleontologic

5. Cultural Site Type (interpreted function): City & Mine

6. Paleontological Site Type: ___Invertebrate; ___Vertebrate; ___Flora

7. Elevation [I/11-15] 6000-6400 ft. X.3048 = 1828-1950 m.
elevation source: Contour

8. UTM Grid: [I/16-30] zone 12 ; 554000 m E; 4379000 m N

9. [II/1-16] ____ of ____ of ____ of Section 32 T. 14S., R. 14E.

10. Map Reference: Sunnyside, Utah Series: 7.5 Date: 1972

11. Aerial Photo Data: ____

12. Site Location: Take highway directly to Sunnyside. Old town just inside north of Whitmore Canyon and extends nearly 2/3 miles up canyon, into present mine area.

13. Land Owner [II/17-18]: Private-Kaiser Steel Corp.
BLM District/Forest [II/19]: ____

14. Site Name/Previous Designations: Old Sunnyside

15. Description of Site: The remains of dozens of foundations for houses, stores, schools etc. On both sides of canyon-site includes old mine portals, mine faciliti water systems, roads and old machine guard nests used during 1928 labor strikes. Much of the site has been removed for recent mine expansion.

16. Artifacts: Artifacts should be described/drawn on a continuation sheet and their locations plotted on the site map.

CLASS	QUANTITY
Debitage [II/30]	
Bifaces [III/1-9]	
Scrapers [III/1-9]	
Utilized Flakes	

CLASS	TYPE	QUANTITY
Ceramics [III/10-21]	x	
Proj Pnt [III/1-9]		
Gnd Stn [II/22-29]		
Glass [II/22-29]	x	
Metal [II/22-29]	x	
Nails [II/22-29]	x	
Cans [II/22-29]	x	
Wood [II/22-29]	x	
Other [II/22-29]		

Description: Thousands of artifacts on the remaining parts of old town - especially heavy concentration along the westside - porcelain, colored glass, bottles, cans etc.

17. Non-Structural Features: (describe and locate on site map) [III/22-27]

_hearth/firepit(HE)	_rubble mound(RM)	_earthen mound(EM)	_trail/road(TR)
_midden(MD)	_stone circle(SC)	_burial(BU)	_RR grade(RG)
_depression(DE)	_rock alignment(RA)	_pictograph(PI)	_tram way/road(TW)
_water control(WC)	_mine tailings(MT)	_petroglyph(PE)	_other(OT)

Description: ____

18. Structural Features: (describe and locate on site map) [III/28-IV/6]

CLASS	MATERIAL	QUANTITY	CLASS	MATERIAL	QUANTITY
Single rm			Tower		
Multiple rm			Cairn		
Granary			Corral		
Cist			Dugout		
Pithouse			Kiln		
Kiva			Monument		
Well			Mine		

Description: see report (section 5.1.5) by Neilson, Merril and Oviatt (1981) for greater detail of city.

19. Cultural Affiliation [IV/7-14]: Historic American
How Determined? Mine & City Records
20. Site Dimensions : ____m X ____m; Area [IV/17-21]; _____sq
21. Were surface artifacts collected? __Yes; x No; [IV/22] If yes, attach a continuation sheet describing sampling method used.
22. Estimated depth of fill [IV/23] : _____
Subsurface test? __Yes; x No (Include location of test on site map)
Description: _____
23. Site Condition [IV/25] : __Excellent; __Good; __Fair; __Poor
Agent of Impact: Natural deterioration, vandalism, distruction for mine expansion.
24. Nat. Register Potential [V/1]: x Significant(C); __Non-Significant(D)
Justification: Much left--some undisturbed foundation. Good area for historic architecture, mine town ethnic studies.

25. Research Potential: Yes
26. Recommended Mitigation: preserve
27. Direction/Distance to Permanent Water [V/5-10] : ____/_____m
Type/Name of Water Source [V/11] : On site Grassy Trail Creek
Distance to nearest other Water Source [V/2-4]: Spring-1KM
Type of other water source: Springs-Up Number Two Canyon
Distance to Cultivatable Soil [V/12-14] : On site
28. Topographic Location (check one under each heading) [V/15-18]

PRIMARY LANDFORM
_mountain spine(A)
_hill/butte(B)
_tableland/mesa(C)
_ridge(D)
_valley(E)
_plain(F)
Xcanyon(G)

POSITION ON LANDFORM
_top/crest/peak(A)
Xedge(B)
_slope(C)
_toe/foot/bottom(D)
_saddle/pass(E)
_bench/ledge(F)
_rimrock(G)
Xinterior(H)

DEPOSITIONAL ENVIRONMENT
_fan(A)
Xalus(B)
_dune(C)
_stream terrace(D)
_playa(E)
shore feature
_extinct lake(F)
_extant lake(G)
X_alluvial plain(H)
_coluvium(I)
_moraine(J)
_flood plain(K)
_marsh(L)
_landslide/slump(M)
_delta(N)
_island(O)
_cliff(P)
_outcrop(Q)
_stream bed(R)

SECONDARY POSITION
_top/crest/ridge(A)
Xedge(B)
_slope(C)
_toe/foot(D)
_cutbank(E)
_detached monolith(F)
Xinterior(G)
_step(H)
_riser(I)
_port.geo.feature(J)
_spring mound/bog(K)
_cave(L)
_alcove/shelter(M)
_patterned ground(N)

Description: Occupies the canyon floor and sides. Includes alluvial and talus areas in the canyon.

29. Degree/Aspect of slope [V/19-23] : 0-30 All directions
30. Vegetation COMMUNITY and association [V/24-25]:

_ALPINE GRASSLAND(AA)
_SPRUCE FIR(BZ)
_krumholz(BA)
_white fir-spruce(BB)
_ASPEN DOUGLAS FIR(CZ)
_limber pine(CA)
_douglas fir(CB)
_lodgepole pine(CC)
_bristlecone pine(CD)
_aspen(CE)
_streamside(CD)
_meadow grassland(CG)

_YELLOW PINE-OAK(DZ)
_ponderosa pine(DA)
_oakbrush(DB)
_mountain brush(DC)
_maple(DD)
X_streamside(DE)

_PLAINS/PRAIRIE(EZ)
_grasslands(EA)
_pinyon-juniper(EB)
X_streamside(EC)

_COLD DESERT SHRUB(FZ)
_sagebrush(FA)
_small sagebrush(FB)
_little rabbitbrsh(FC)
_shadscale(FD)
_horsebrush(FE)
_winter-fat(FF)
_hop-sage/blkbrsh(FG)
_bud sagebrush(FH)
_mat saltbrush(FI)
_gray molly(FJ)
_streamside(FK)

_SALT DESERT SHRUB(GZ)
_greasewood(GA)
_grswood-shadscl(GB)
_seepweed(GC)
_picklewd/samphire(GD)
_saltgrass(GE)
_alkali sacaton(GF)
_rabbitbrush(GG)

_WARM DESERT SHRUB(HZ)
_desert saltbrush(HA)
_creosote bush(HB)
_creosote/bursage(HC)
_joshua tree(HD)
_MARSH COMMUNITY(__)

_ALKALI FLATS/MUD FLATS/DRY LAKE/ WASTELAND(KZ)

_CULTIVATED LAND(JZ)

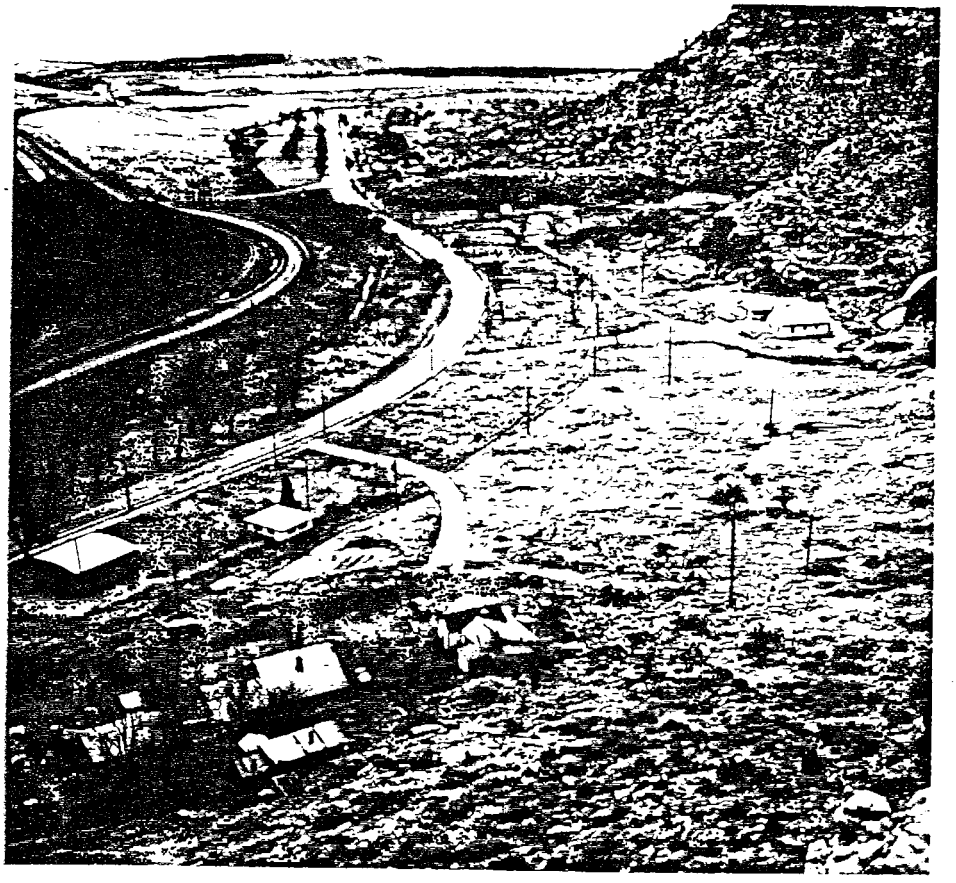
(Check COMMUNITY only if association cannot be determined)

Description: former streams side with willow, birch, sage grasses etc. now altered due to development.

31. Next nearest plant association/distance: E.B.-10-100 m
32. Photograph Numbers [V/26] : _____
33. Recorded by: Dave Merril
Survey Org. [V/27-28]: State History-Library Date: Feb 28, 1981
Assisting Crew Members: _____

34. Sponsoring Agency: Kaiser Steel _____ Contract No.

SITE NO. 42Sa245



Site 42Cb245
General View of the
Sunnyside Site Area
Looking South.

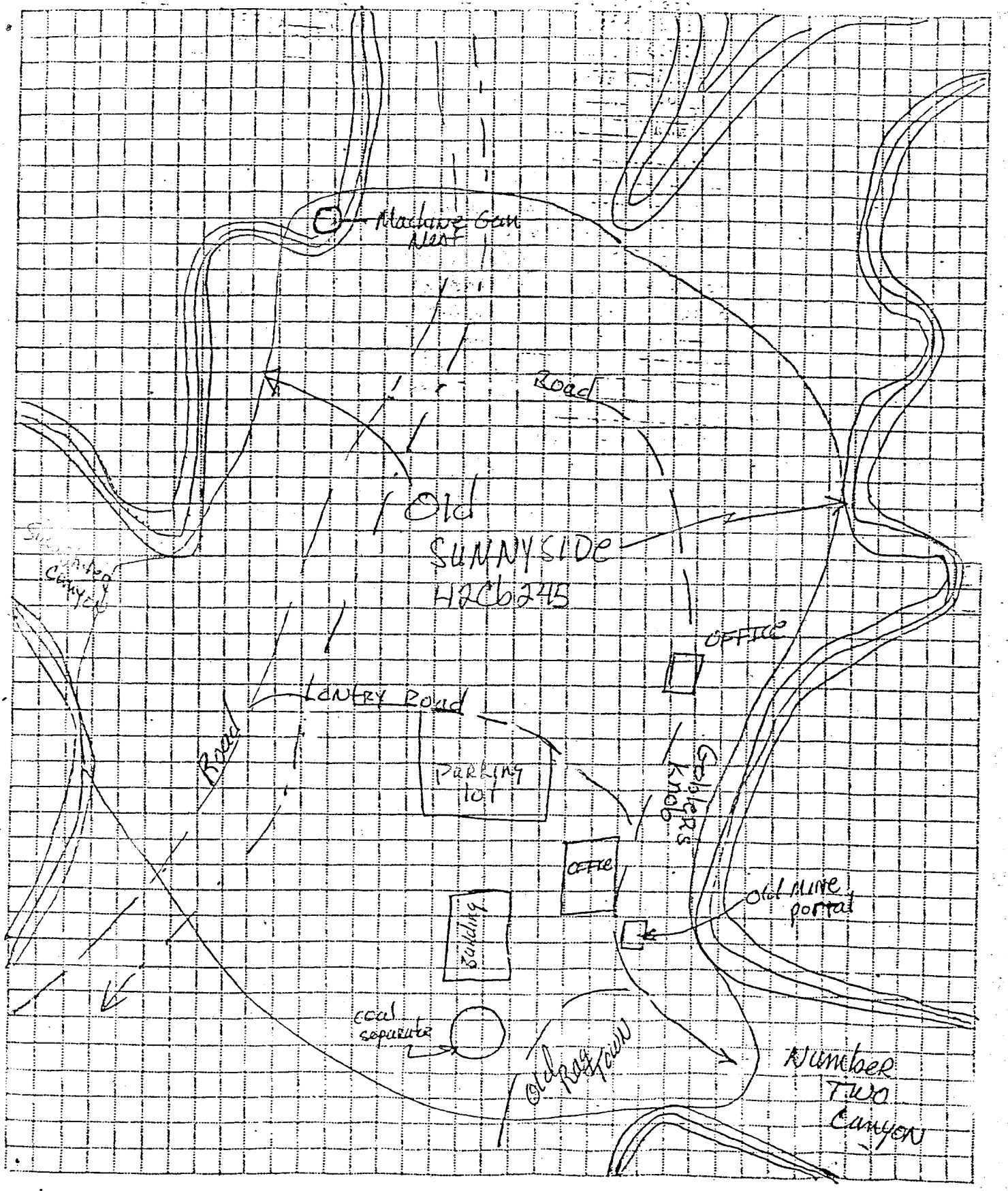
35. Encoding Form: (all entries are right justified)

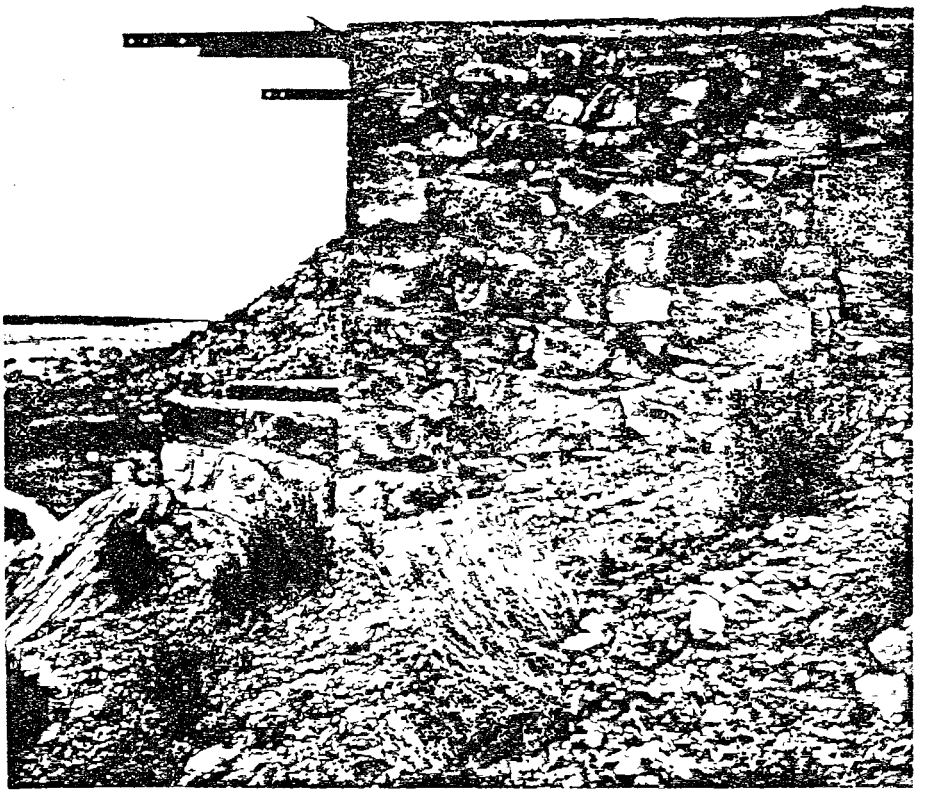
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
I																															
II																															
III																															
IV																															
V																															
VI																															

INCORPORATED
AUG 16 1995
UTAH DIVISION OIL, GAS AND MINING

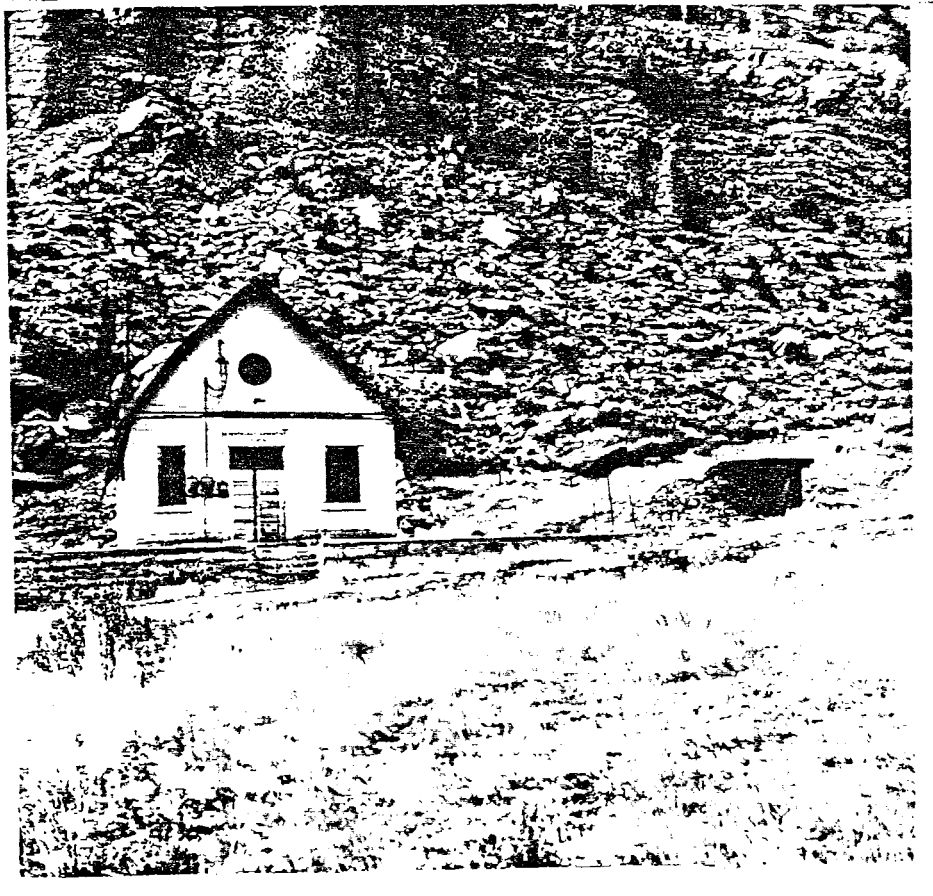
Form must be accompanied by a site map; photocopy of U.S.G.S. topo map with T., R., scale, and quad name; photographs of the site; and artifact sketches (if applicable).

 SITE NO. 42Cb245

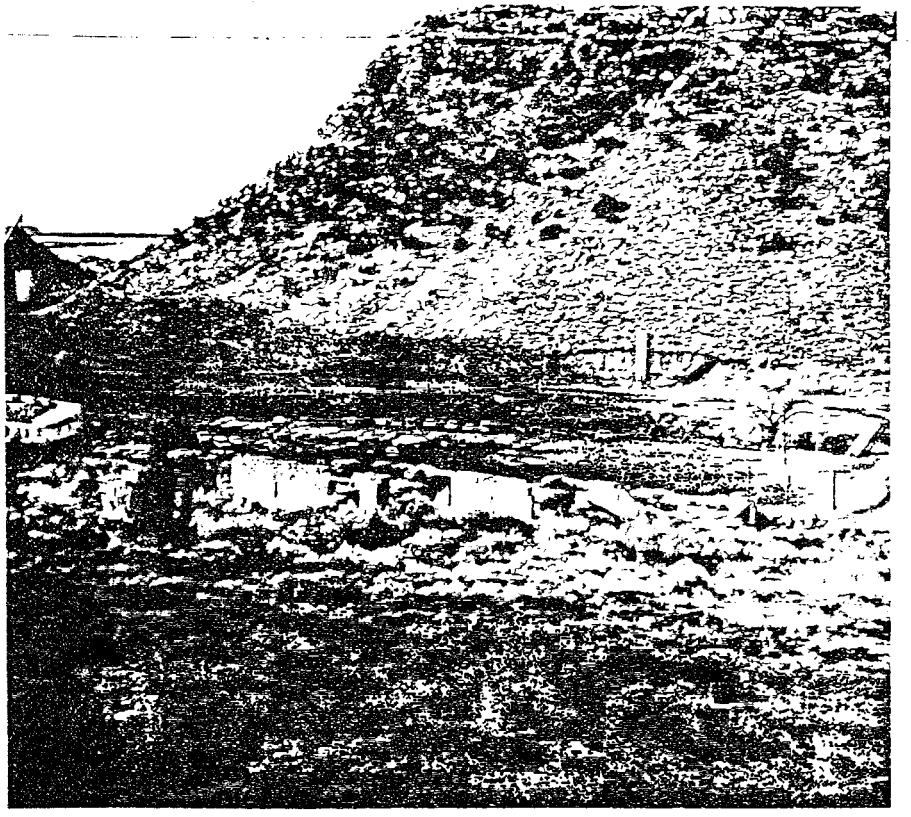




Machine gun emplacement at 42Cb245.



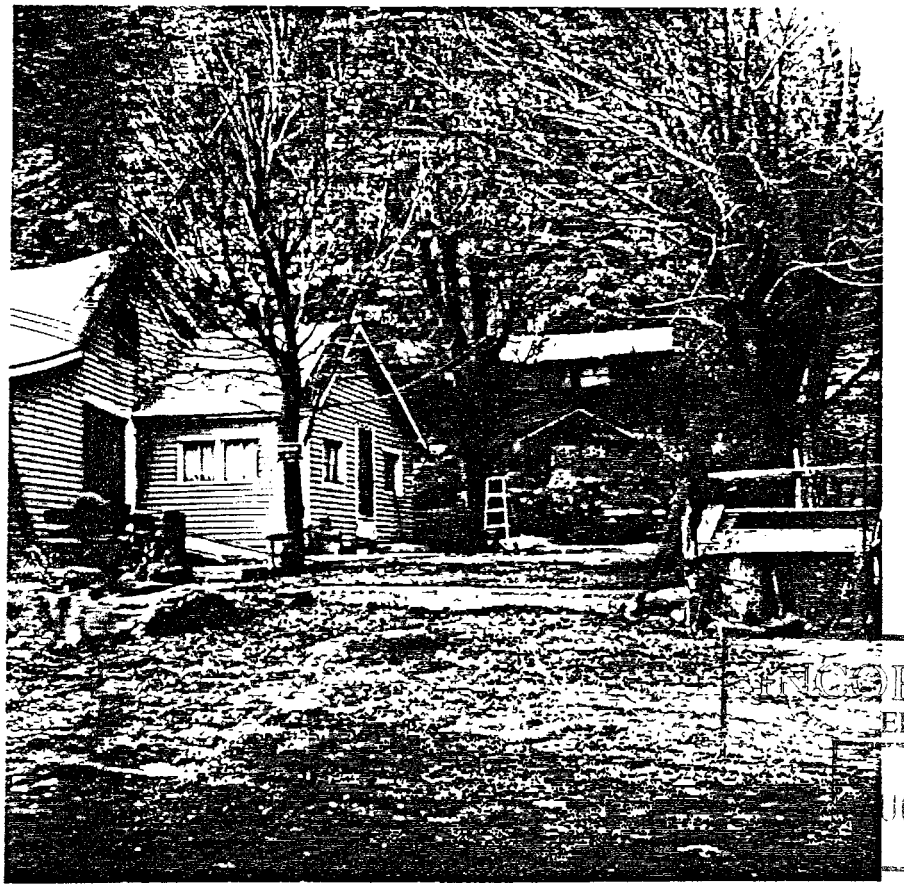
Seventh Day Adventist Church at 42Cb245.



Gobler's Nob at 42Cb245.

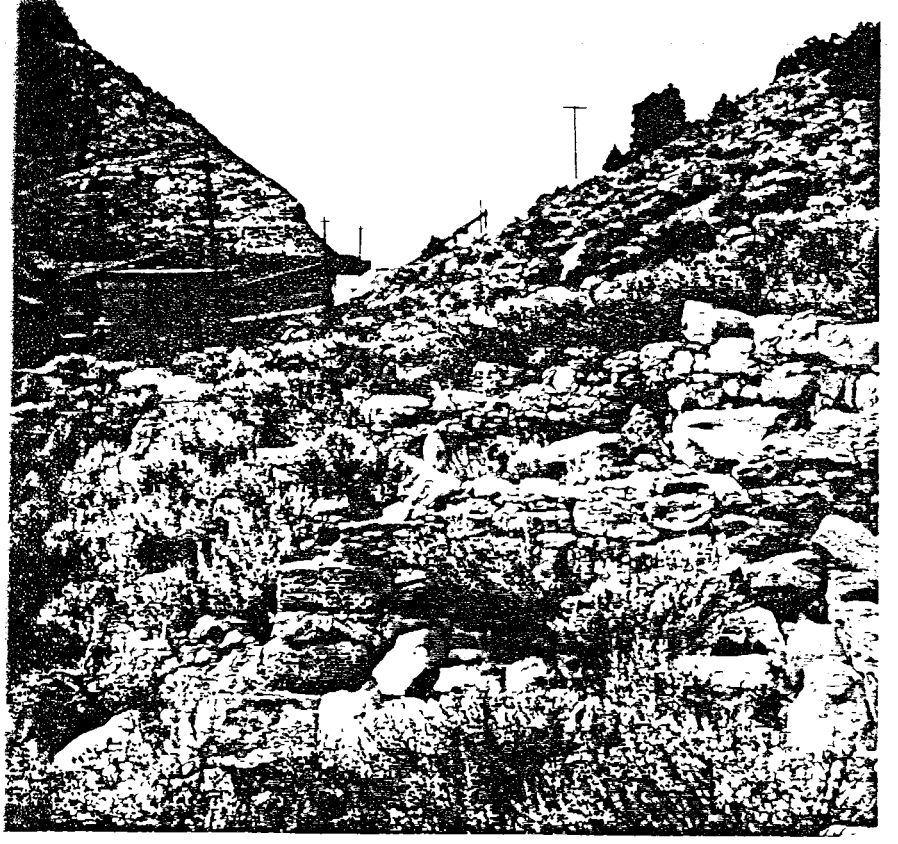
Retaining wall across ravine east of Gobler's Nob at 42cb245.

Three homesites with stone foundations at 42Cb245.



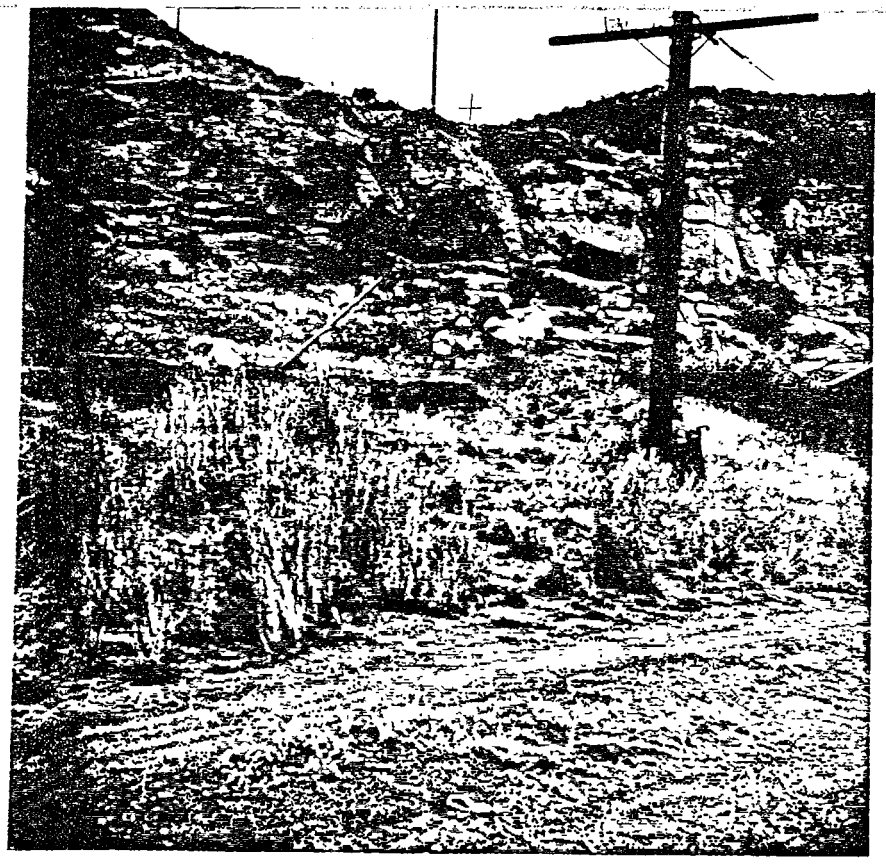
Massatt Home built circa 1901 at 42Cb245.

INCORPORATED
EFFECTIVE:
UG 1 6 1995
UTAH DIVISION OIL, GAS AND MINING

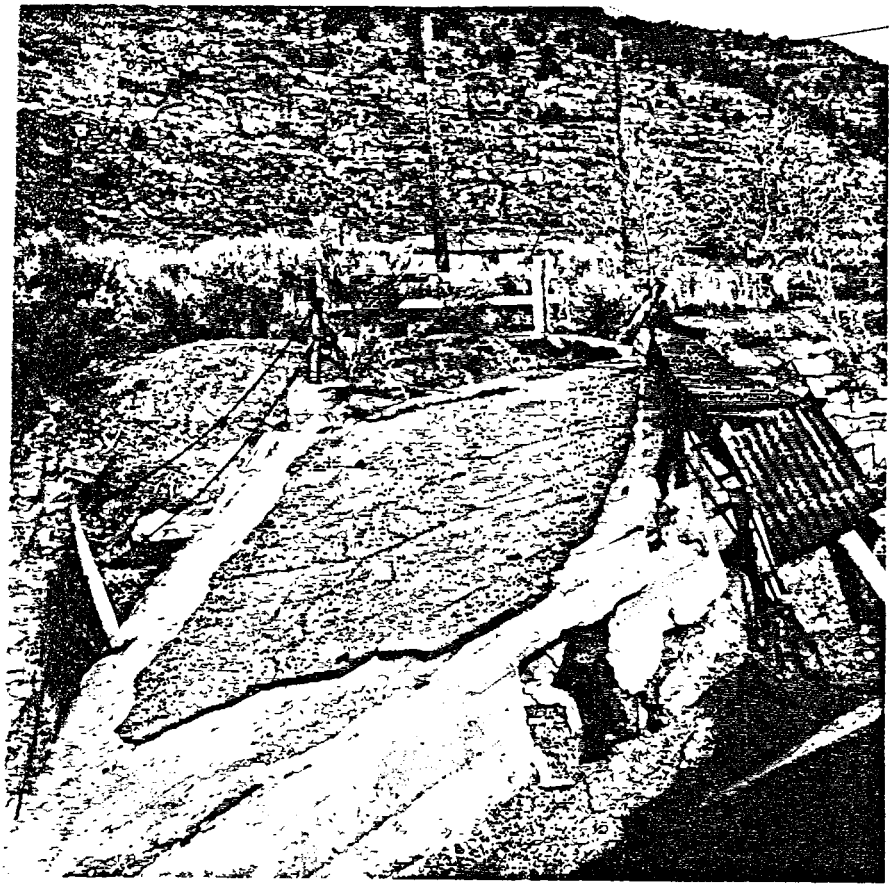


Home site at 42Cb245.

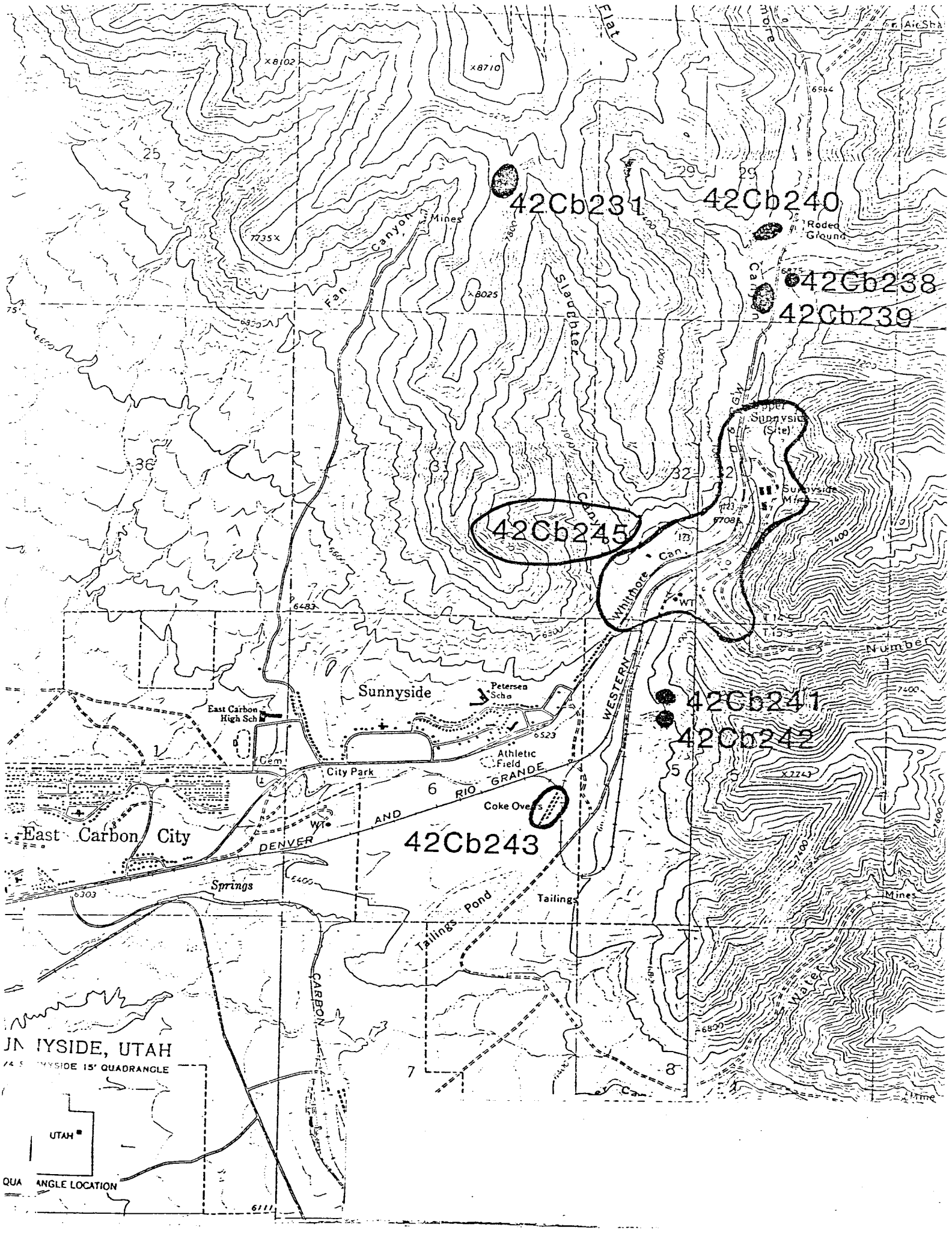
Home site with rock foundation 42Cb245.



Remants of chinese boarding at 42Cb245.



Bridge built as part of original Carbon County road at 42Cb245.


42Cb231
42Cb240
42Cb238
42Cb239
42Cb245
42Cb241
42Cb242
42Cb243
Roded Ground
Upper Sunnyside (Site)
Sunnyside Mine
Fan Canyon
Mines
Slaughter
Whitmore Can
Sunnyside
Petersen Sch
East Carbon High Sch
Athletic Field
City Park
Coke Ovens
East Carbon City
DENVER AND RIO GRANDE
WESTERN
Springs
Tailings
Tailings Pond
CARBON
Water
Number
UTAH
QUADRANGLE LOCATION

UTAH ANTIQUITIES SITE FORM
developed by cooperative agreement by:
Bureau of Land Management
Division of State History
University of Utah Archeological Center

1. Site No. [I/1-10] 42Cb247

2. County Carbon
3. Temp. No. ____

4. Class: ___ Prehistoric x Historic ___ Paleontologic
5. Cultural Site Type (interpreted function): Tran Way
6. Paleontological Site Type: ___ Invertebrate; ___ Vertebrate; ___ Flora
7. Elevation [I/11-15] 6900-9000 ft. X .3048 = 2103-2743 m.
elevation source: Contours
8. UTM Grid: [I/16-30] zone 12 ; ___ m E; ___ m N
9. [II/1-16] ___ of NW of NW of Section 20 T. 14 S, R. 14 E
10. Map Reference: Sunnyside and Patmos Head, Ut Series: 7.5 Date: 1972
11. Aerial Photo Data: ____

12. Site Location: Tramway End Points UTM coordinates: from 553500 E. 4383300 N to 556000 E. 4387000 N.

13. Land Owner [II/17-18]: Private-Kaiser Steel Corp.
BLM District/Forest [II/19]: ____
14. Site Name/Previous Designations: Utah Asphaltum Company Tramway
15. Description of Site: Consist of numerous tram towers, cables and buckets that carried tar sands (asphaltum) from the mines above Water Canyon down into Whitmore Canyon for transport elsewhere. Bucket and cable still hang between towers on several locations. Towers are in various state of ruin.

16. Artifacts: Artifacts should be described/drawn on a continuation sheet and their locations plotted on the site map.

CLASS	QUANTITY
Debitage [II/30]	____
Bifaces [III/1-9]	____
Scrapers [III/1-9]	____
Utilized Flakes	____

CLASS		TYPE	QUANTITY
Ceramics [III/10-21]		____	____
Proj Pnt [III/1-9]		____	____
Gnd Stn [II/22-29]		____	____
Glass	[II/22-29]	x	____
Metal	[II/22-29]	x	____
Nails	[II/22-29]	____	____
Cans	[II/22-29]	____	____
Wood	[II/22-29]	x	____
Other	[II/22-29]	x	____

Description: built of concrete, wood frames and metal supports

17. Non-Structural Features: (describe and locate on site map) [III/22-27]

_hearth/firepit(HE)	_rubble mound(RM)	_earthen mound(EM)	_trail/road(TR)
_midden(MD)	_stone circle(SC)	_burial(BU)	_RR grade(RG)
_depression(DE)	_rock alignment(RA)	_pictograph(PI)	_tram way/road(TW)
_water control(WC)	_mine tailings(MT)	_petroglyph(PE)	_other(OT)

Description: ____

18. Structural Features: (describe and locate on site map) [III/28-IV/6]

CLASS	MATERIAL	QUANTITY
Single rm	____	____
Multiple rm	____	____
Granary	____	____
Cist	____	____
Pithouse	____	____
Kiva	____	____
Well	____	____

CLASS	MATERIAL	QUANTITY
Tower	wood, concrete	30
Cairn	____	____
Corral	____	____
Dugout	____	____
Kiln	____	____
Monument	____	____
Mine	____	____

Description: Each tower an A frame or II retangular - bars vary with locations as do height. More massive typed tend to set on canyon edges where tram makes large spans

19. Cultural Affiliation [IV/7-14]: Historic American
How Determined? Historic Records
20. Site Dimensions : ____m X ____m; Area [IV/17-21]; ____sq
21. Were surface artifacts collected? __Yes; x No; [IV/22] If yes, attach a continuation sheet describing sampling method used.
22. Estimated depth of fill [IV/23] : ____
Subsurface test? __Yes; x No (Include location of test on site map)
Description: ____
23. Condition [IV/25] : __Excellent; __Good; x Fair; __Poor
Agent of Impact: erosion, vandalism
24. Nat. Register Potential [V/1]: x Significant (C); __Non-Significant (D)
Justification: Mine historic and tedinology

25. Research Potential: yes
26. Recommended Mitigation: preserve
27. Direction/Distance to Permanent Water [V/5-10] : ____/____m
Type/Name of Water Source [V/11] : ____
Distance to nearest other Water Source [V/2-4]: ____
Type of other water source: ____
Distance to Cultivatable Soil [V/12-14] : ____
28. Topographic Location (check one under each heading) [V/15-18]

PRIMARY LANDFORM
_mountain spine(A)
_hill/butte(B)
_tableland/mesa(C)
_ridge(D)
_valley(E)
_plain(F)
_canyon(G)

POSITION ON LANDFORM
_top/crest/peak(A)
_edge(B)
_slope(C)
_toe/foot/bottom(D)
_saddle/pass(E)
_bench/ledge(F)
_rimrock(G)
_interior(H)

DEPOSITIONAL ENVIRONMENT
_fan(A)
_talus(B)
_dune(C)
_stream terrace(D)
_playa(E)
shore feature
_extinct lake(F)
_extant lake(G)
_alluvial plain(H)
_coluvium(I)
_moraine(J)
_flood plain(K)
_marsh(L)
_landslide/slump(M)
_delta(N)
_island(O)
_cliff(P)
_outcrop(Q)
_stream bed(R)

SECONDARY POSITION
_top/crest/ridge(A)
_edge(B)
_slope(C)
_toe/foot(D)
_cutbank(E)
_detached monolith(F)
_interior(G)
_step(H)
_riser(I)
_port.geo.feature(J)
_spring mound/bog(K)
_cave(L)
_alcove/shelter(M)
_patterned ground(N)

Description: Begins on Whitmore Canyon floor and proceeds to cross talus slopes, ridge lines cliff, etc. to old asphalt mines.

29. Degree/Aspect of slope [V/19-23] : ____
30. Vegetation COMMUNITY and association [V/24-25]:

_ALPINE GRASSLAND(AA)
_SPRUCE FIR(BZ)
_krumholz(BA)
_white fir-spruce(BB)
_ASPEN DOUGLAS FIR(CZ)
_limber pine(CA)
Xdouglas fir(CB)
_lodgepole pine(CC)
_bristlecone pine(CD)
_aspen(CE)
_streamside(CD)
_meadow grassland(CG)

_YELLOW PINE-OAK(DZ)
_ponderosa pine(DA)
_oakbrush(DB)
Xmountain brush(DC)
_maple(DD)
_streamside(DE)

_PLAINS/PRAIRIE(EZ)
_grasslands(EA)
Xpinyon-juniper(EB)
_streamside(EC)

_COLD DESERT SHRUB(FZ)
_sagebrush(FA)
_small sagebrush(FB)
_little rabbitbrsh(FC)
_shadscale(FD)
_horsebrush(FE)
_winter-fat(FF)
_hop-sage/blkbrsh(FG)
_bud sagebrush(FH)
_mat saltbrush(FI)
_gray molly(FJ)
_streamside(FK)

_SALT DESERT SHRUB(GZ)
_greasewood(GA)
_grswood-shadscl(GB)
_seepweed(GC)
_picklewd/samphire(GD)
_saltgrass(GE)
_alkali sacaton(GF)
_rabbitbrush(GG)

_WARM DESERT SHRUB(HZ)
_desert saltbrush(HA)
_creosote bush(HB)
_creosote/bursage(HC)
_joshua tree(HD)
_MARSH COMMUNITY(IA)

_ALKALI FLATS/MUD FLATS/DRY LAKE/ WASTELAND(KZ)

_CULTIVATED LAND(JZ)

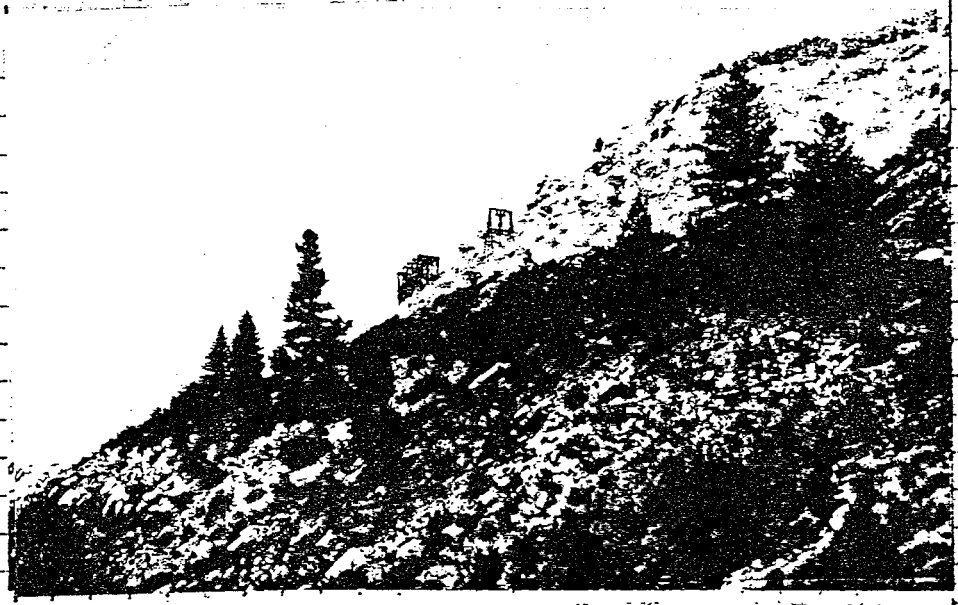
(Check COMMUNITY only if association cannot be determined)

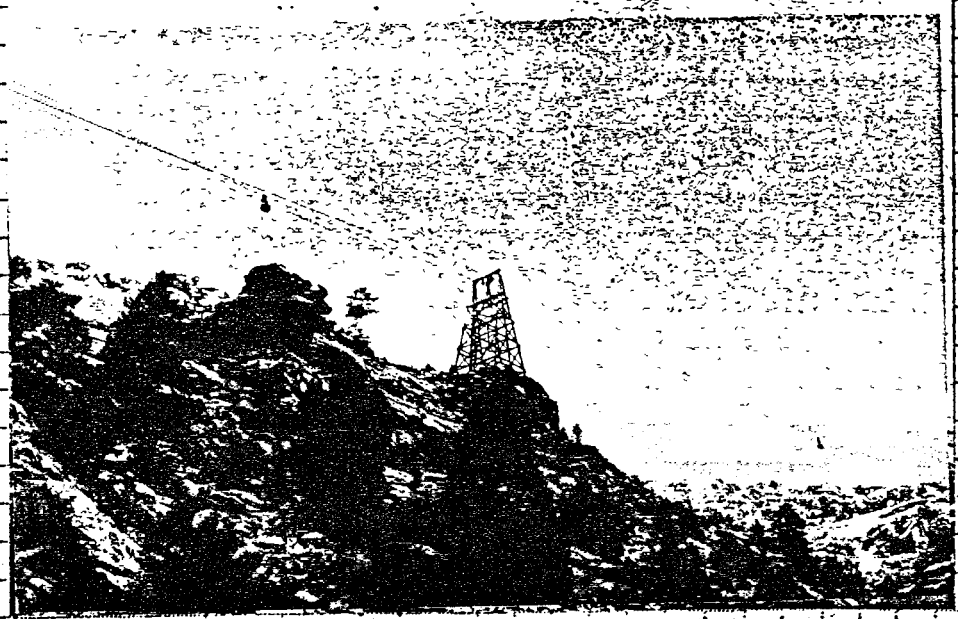
Description: Crosses several vegetation zones - mostly pinyon-juniper, oak brush, sage, grasses, aspen, douglas fir.

31. Next nearest plant association/distance: ____
32. Photograph Numbers [V/26] : ____
33. Recorded by: Asa Nielson - David Merril
Survey Org. [V/27-28]: Antiquities Section Date: 02/28/81
Assisting Crew Members: Jack Oviatt, Jim Kirkman

34. Sponsoring Agency: Kaiser Steel Contract No. ____

SITE NO.





Site 42Cb247
Two Views of Tramway
Tower Structures in Water
Canyon.

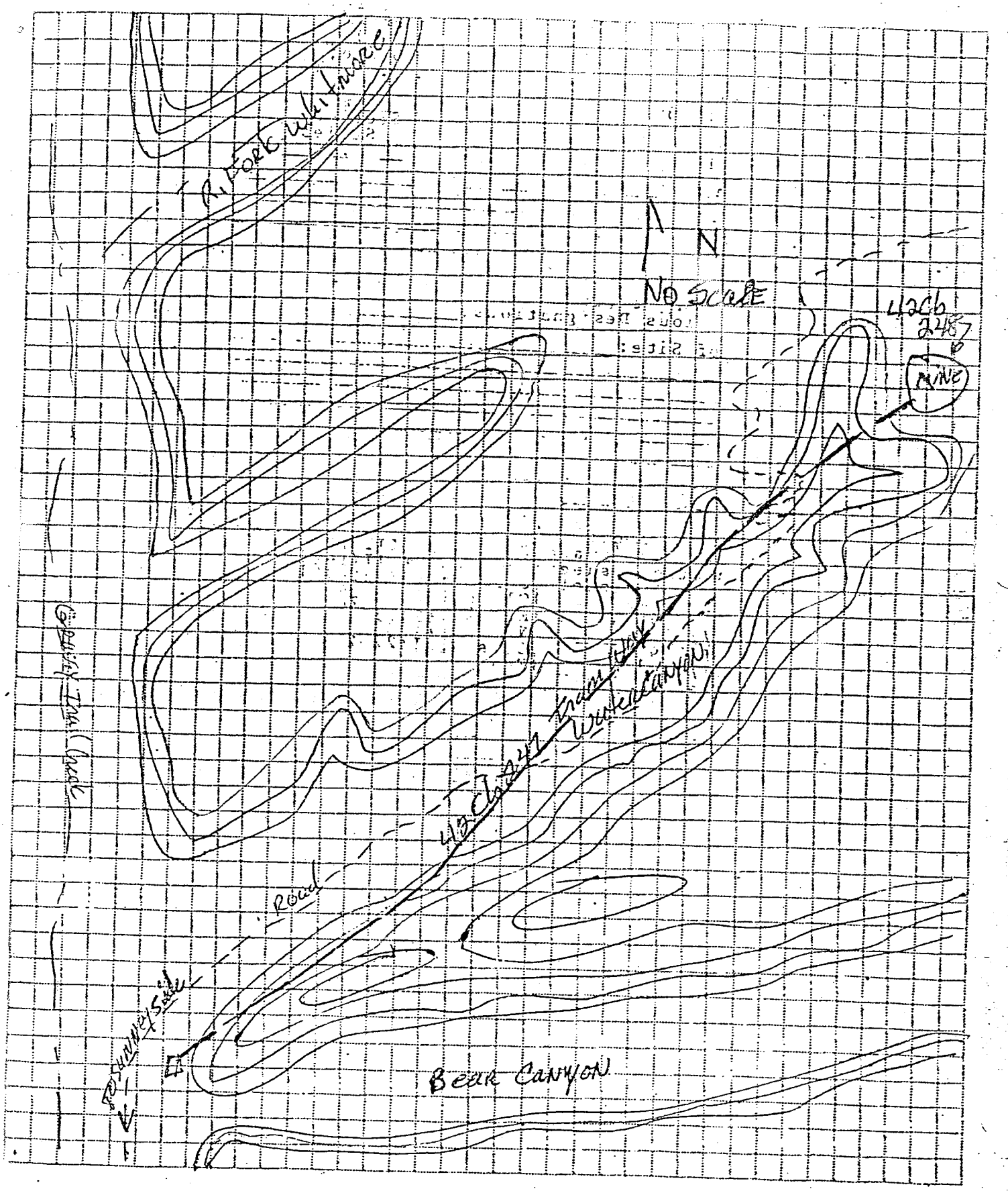
35. Encoding Form: (al fied)

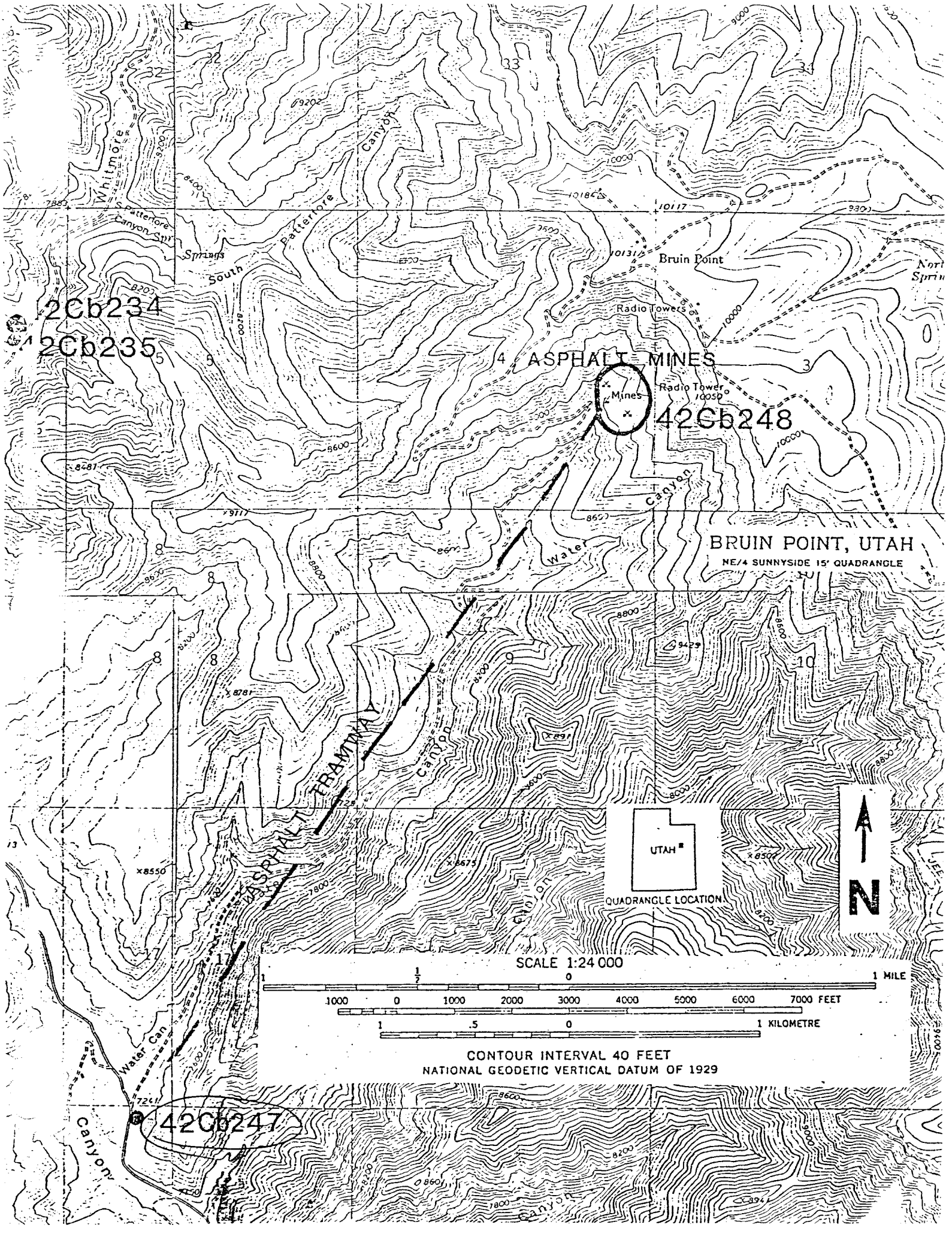
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
I																															
II																															
III																															
IV																															
V																															
VI																															

INCORPORATED
EFFECTIVE:
AUG 1 6 1995
DIVISION OF OIL, GAS AND MINING

Form must be accompanied by a site map; photocopy of U.S.G.S. topo map with T., R., scale, and quad name; photographs of the site; and artifact sketches (if applicable).

 SITE NO. 42Cb 247





BRUIN POINT, UTAH
NE/4 SUNNYSIDE 15' QUADRANGLE
ASPHALT MINES
ASPHALT TRAMWAY
42Cb234
42Cb235
42Cb248
42Cb247
Bruin Point
Radio Towers
Radio Tower
Mines
Whitmore
South Patterfore Canyon
Water Canyon
Water Can
Canyon
UTAH
QUADRANGLE LOCATION
N
SCALE 1:24 000
1 MILE
7000 FEET
1 KILOMETRE
CONTOUR INTERVAL 40 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

UTAH ANTIQUITIES SITE FORM
developed by cooperative agreement by:
Bureau of Land Management
Division of State History
University of Utah Archeological Center

1. Site No. [I/1-10] 42Cb248

2. County Carbon
3. Temp. No.

4. Class: Prehistoric X Historic Paleontologic
5. Cultural Site Type (interpreted function): Asphalt (tar sand) Mine
6. Paleontological Site Type: Invertebrate; Vertebrate; Flora
7. Elevation [I/11-15] 9000 ft. X.3048= 2743 m.
elevation source: Contour
8. UTM Grid: [I/16-30] zone ; m E; m N
9. [II/1-16] of NE of SE of Section 4 T. 14S, R. 14E
10. Map Reference: Bruin Point Series: 7.5 Date: 1972
11. Aerial Photo Data:

12. Site Location: Take state highway to Sunnyside; proceed past Kaiser Steel Mines 3.6 kilometers to Water Canyon. Travel east up Water Canyon about 4 kilometers. Mine access is on a large switch back on the road and is visable from road.

13. Land Owner [II/17-18]: Patent claim-Atlantic Richfield Oil Company
BLM District/Forest [II/19]:
14. Site Name/Previous Designations: Utah Asphaltum Company Mine

15. Description of Site: Two large tar sane/shale oil deposits on the west side of Patmos Ridge, just below Bruin Point. Site is a cliff cut type mine. One dug out building on the south side. Concrete building near tramway entry.

16. Artifacts: Artifacts should be described/drawn on a continuation sheet and their locations plotted on the site map.

CLASS	QUANTITY
Debitage [II/30]	
Bifaces [III/1-9]	
Scrapers [III/1-9]	
Utilized Flakes	

CLASS	TYPE	QUANTITY
Ceramics [III/10-21]	X	
Proj Pnt [III/1-9]		
Gnd Stn [II/22-29]		
Glass [II/22-29]	X	
Metal [II/22-29]	X	
Nails [II/22-29]		
Cans [II/22-29]		
Wood [II/22-29]	X	
Other [II/22-29]		

Description: Ironstone and porcelain, various green, blue, and brown glass types.

17. Non-Structural Features: (describe and locate on site map) [III/22-27]

_hearth/firepit(HE)	_rubble mound(RM)	_earthen mound(EM)	_trail/road(TR)
_midden(MD)	_stone circle(SC)	_burial(BU)	_RR grade(RG)
_depression(DE)	_rock alignment(RA)	_pictograph(PI)	_tram way/road(TW)
_water control(WC)	_mine tailings(MT)	_petroglyph(PE)	_other(OT)

Description: None

18. Structural Features: (describe and locate on site map) [III/28-IV/6]

CLASS	MATERIAL	QUANTITY
Single rm		
Multiple rm		
Granary		
Cist		
Pithouse		
Kiva		
Well		

CLASS	MATERIAL	QUANTITY
Tower	X	
Cairn		
Corral		
Dugout	block/wood	1
Kiln		
Monument		
Mine	X	2

Description: Two mine areas, about 100 meters across, concrete/block dugout about 4 X 4 meters. Also end of 42Cb247 is on the site - the last terminal tram support.

19. Cultural Affiliation [IV/7-14]: Historic
How Determined? Records
20. Site Dimensions : 300 m X 70 m; Area [IV/17-21]: _____ sq m
21. Were surface artifacts collected? __Yes; X No; [IV/22] If yes, attach a continuation sheet describing sampling method used.
22. Estimated depth of fill [IV/23] : Unknown
Subsurface test? __Yes; x No (Include location of test on site map)
Description: _____
23. Site Condition [IV/25] : __Excellent; __Good; x Fair; __Poor
Agent of Impact: Erosion - vandalism to dugout
24. Nat. Register Potential [V/1]: x Significant (C); __Non-Significant (D)
Justification: Only one of its kind in Utah with Tramway. Good for historic mine studies.

25. Research Potential: Yes
26. Recommended Mitigation: Preserve
27. Direction/Distance to Permanent Water [V/5-10] : West / 200 m
Type/Name of Water Source [V/11] : Water Canyon Creek
Distance to nearest other Water Source [V/2-4]: 2.5 kilometers
Type of other water source: Grassy Trail Creek
Distance to Cultivatable Soil [V/12-14] : _____
28. Topographic Location (check one under each heading) [V/15-18]

PRIMARY LANDFORM	POSITION ON LANDFORM	DEPOSITIONAL ENVIRONMENT		SECONDARY POSITION
_mountain spine(A)	_top/crest/peak(A)	_fan(A)	_marsh(L)	_top/crest/ridge(A)
_hill/butte(B)	_edge(B)	_talus(B)	_landslide/slump(M)	X edge(B)
X tableland/mesa(C)	_slope(C)	_dune(C)	_delta(N)	_slope(C)
_ridge(D)	_toe/foot/bottom(D)	_stream terrace(D)	_island(O)	_toe/foot(D)
_valley(E)	_saddle/pass(E)	_playa(E)	_cliff(P)	_cutbank(E)
_plain(F)	_bench/ledge(F)	shore feature	X outcrop(Q)	_detached monolith(F)
_canyon(G)	_rimrock(G)	_extinct lake(F)	_stream bed(R)	_interior(G)
	_interior(H)	_extant lake(G)		_step(H)
		_alluvial plain(H)		_riser(I)
		_coluvium(I)		_port.geo.feature(J)
		_moraine(J)		_spring mound/bog(K)
		_flood plain(K)		_cave(L)
				_alcove/shelter(M)
				_patterned ground(N)

Description: Upper Wasatch or Lower Green River Formation. A cliff outcrop on the edge of Bruin Point Mesa.

29. Degree/Aspect of slope [V/19-23] : 0-30 west
30. Vegetation COMMUNITY and association [V/24-25]:

_ALPINE GRASSLAND(AA)	_YELLOW PINE-OAK(DZ)	_COLD DESERT SHRUB(FZ)	_SALT DESERT SHRUB(GZ)	_WARM DESERT SHRUB(HZ)
_SPRUCE FIR(BZ)	_ponderosa pine(DA)	_sagebrush(FA)	_greasewood(GA)	_desert saltbrush(HA)
_krumholz(BA)	_oakbrush(DB)	_small sagebrush(FB)	_grswood-shadscl(GB)	_creosote bush(HB)
_white fir-spruce(BB)	_mountain brush(DC)	_little rabbitbrsh(FC)	_seepweed(GC)	_creosote/bursage(HC)
X ASPEN DOUGLAS FIR(CZ)	_maple(DD)	_shadscale(FD)	_picklewd/samphire(GD)	_joshua tree(HD)
_limber pine(CA)	_streamside(DE)	_horsebrush(FE)	_saltgrass(GE)	_MARSH COMMUNITY(LZ)
_douglas fir(CB)		_winter-fat(FF)	_alkali sacaton(GF)	
_lodgepole pine(CC)	_PLAINS/PRAIRIE(EZ)	_hop-sage/blkbrsh(FG)	_rabbitbrush(GG)	_ALKALI FLATS/MUD FLATS/DRY LAKE/ WASTELAND(KZ)
_bristlecone pine(CD)	_grasslands(EA)	_bud sagebrush(FH)		
_aspen(CE)	_pinyon-juniper(EB)	_mat saltbrush(FI)		
_streamside(CD)	_streamside(EC)	_gray molly(FJ)		_CULTIVATED LAND(JZ)
_meadow grassland(CG)		_streamside(FK)		

(Check COMMUNITY only if association cannot be determined)

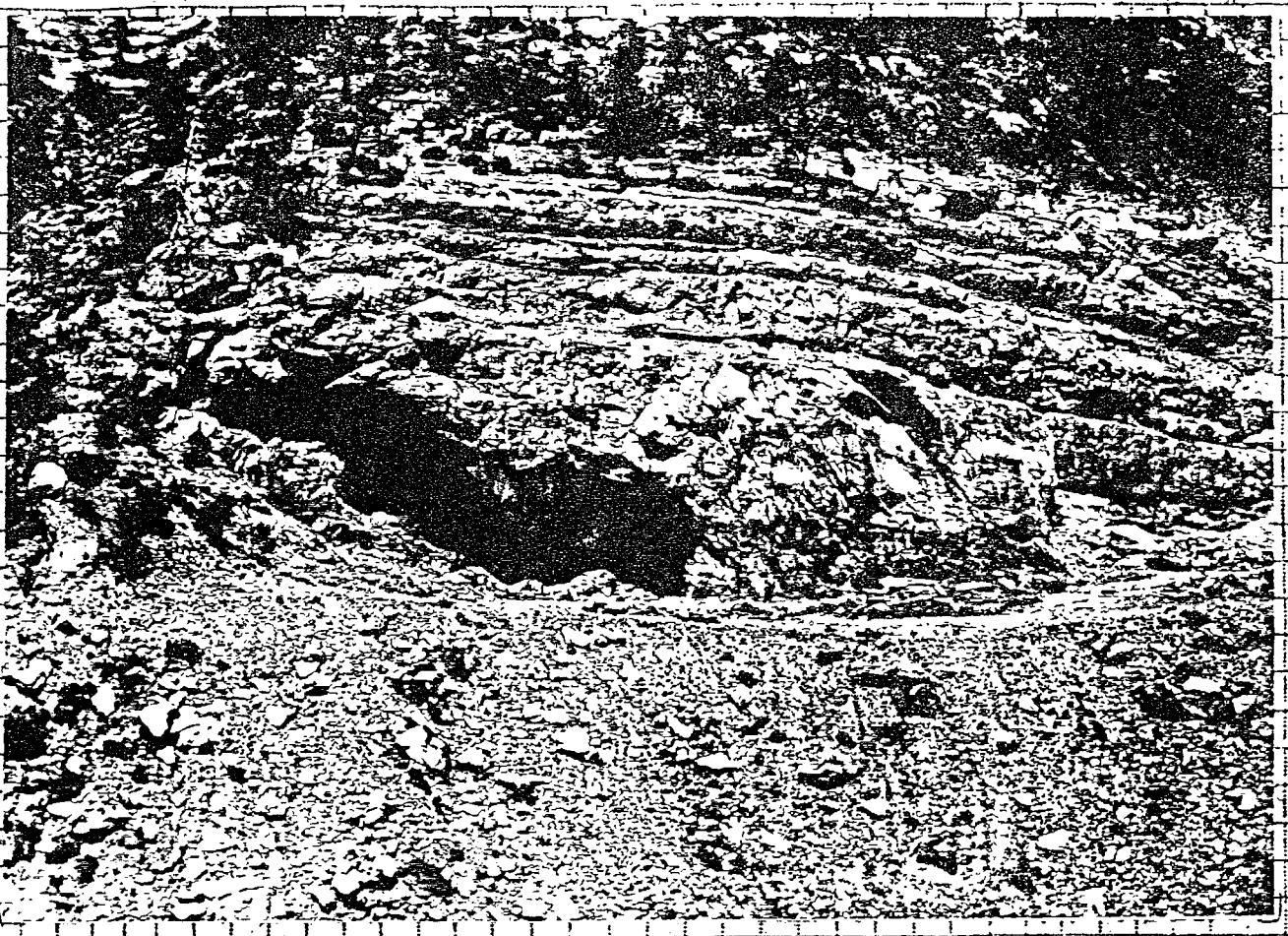
Description: Douglas fir, aspen, sage.

31. Next nearest plant association/distance: EC, 200 m
32. Photograph Numbers [V/26] : No number, personal copy courtesy of Phil Nota
33. Recorded by: Phil Notariani/Asa Nielson
Survey Org. [V/27-28]: Cultural Services, A.S. Date: March 4, 1981
Assisting Crew Members: _____

34. Sponsoring Agency: Kaiser Steel Corp. Contract No. _____

SITE NO. 42Bu

SITE NO. _____

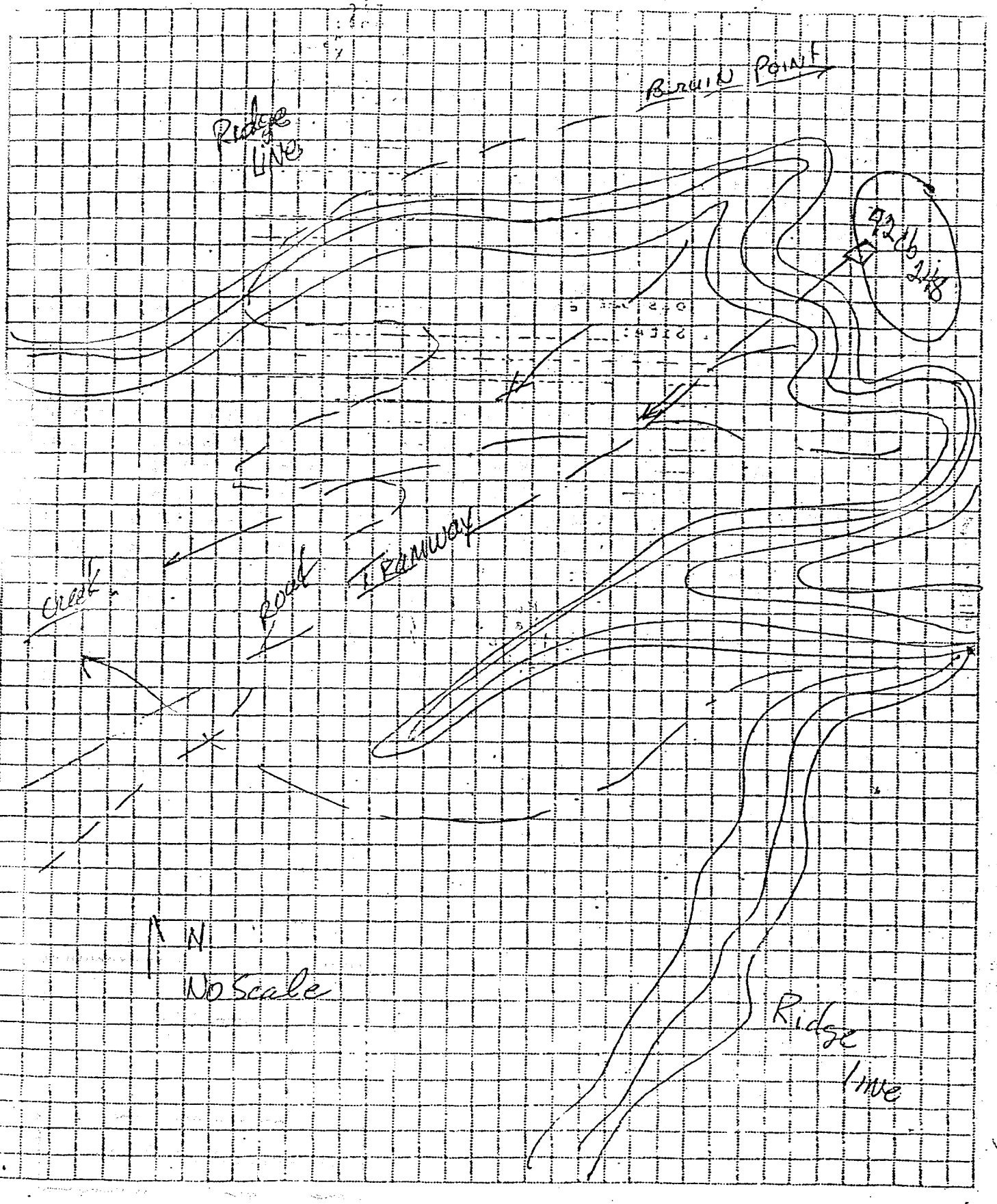


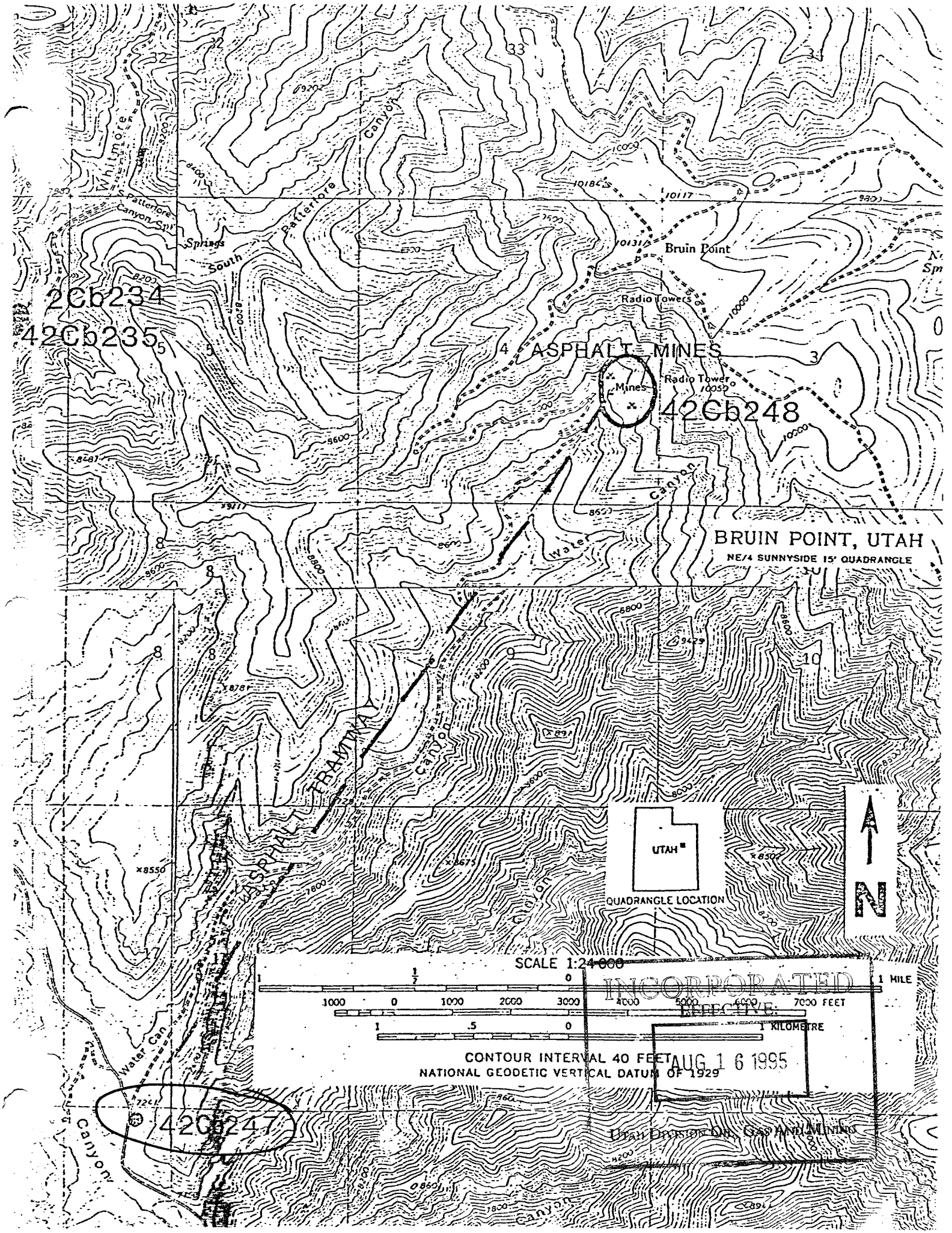
Site 42Cb248
General View of the Mine
Looking East.

35. Encoding Form: (all entries are right justified)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
I																															
II																															
III																															
IV																															
V																															
VI																															

Form must be accompanied by a site map; photocopy of U.S.G.S. topo map with T., R., scale, and quad name; photographs of the site; and artifact sketches (if applicable).


Ridge Line
Bruin Point
42 Cb 248
Creek
Road
Tramway
N
No Scale
Ridge line



INCORPORATED
EFFECTIVE:
AUG 1 6 1995
UTAH DIVISION OF OIL, GAS AND MINING

TABLE OF CONTENTS
CHAPTER FIVE
R645-301-500 (GENERAL ENGINEERING)

R645-301-500 GENERAL ENGINEERING

510 Introduction 500-1
520 Operation Plan 500-7
530 Operational Design Criteria and Plans 500-18
540 Reclamation Plan 500-20
550 Reclamation Design Criteria and Plans 500-20
560 Performance Standards 500-21

FIGURES

Figure 5-1, Side View of Coal Mine Waste Excavation

TABLES

Table 5-1, Inspection Schedule for the Excess Spoil Pile, Refuse Pile and all Impoundments

APPENDICES

Appendix 5-1, Slope Stability Analysis of Sedimentation Ponds
Appendix 5-2, Geotechnical Investigation of Slurry Impoundments (Dames and Moore)
Appendix 5-3, Stability Analysis (Rollins, Brown and Gunnell, Inc.
Appendix 5-4, Stability Analysis (Rollins, Brown and Gunnell, Inc.)
Appendix 5-5, Coal Refuse Pile Geotechnical Report
Appendix 5-6, In-Place Density Determination for the Coarse Refuse Pile
Appendix 5-7, Road Descriptions
Appendix 5-8, MSHA Approval of the Program for Impoundment Inspections

PLATES

Plate 5-1, Surface Facilities, 300' scale
Plate 5-1A, Surface Facilities, 100' scale
Plate 5-1B, Surface Facilities, 100' scale
Plate 5-1C, Surface Facilities, 100' scale
Plate 5-1D, Surface Facilities, 100' scale
Plate 5-1E, Surface Facilities, 100' scale
Plate 5-2, Road Classification Map
Plate 5-2 (A-B), Preliminary Typical Road Cross-sections
Plate 5-2 (C-G), Road Plan and Profile
Plate 5-2H, Road "B" Plan and Profile
Plate 5-2J, Road "N", Road "M", Road "P", and Road "R" Plan and Profile
Plate 5-3, Access Road Drawing
Plate 5-4, Slope Stability Criteria Map
Plate 5-5A, Coarse Refuse Toe/Railcut Topsoil Stockpiles
Plate 5-5B, Slurry Pond/Hoist House Topsoil Stockpiles
Plate 5-5C, New (Lower) Haul Road/Clear Water Pond Topsoil Stockpiles

INCORPORATED
EFFECTIVE:
AUG 1 6 1995
UTAH DIVISION OIL, GAS AND MINING

TABLE OF CONTENTS (cont'd)
CHAPTER FIVE
R645-301-500 (GENERAL ENGINEERING)

PLATES (cont'd)

Plate 5-5D, Access Road/Borrow Area Topsoil Stockpiles
Plate 5-5E, Storage Area #1 Topsoil Stockpile
Plate 5-6, Existing Refuse Piles with Limits of Slurry Cells
Plate 5-7, Previously-Mined Areas
Plate 5-8, Existing Surface and Subsurface Facilities and Features
(Prior to January 21, 1981)

INCORPORATED
EFFECTIVE:
AUG 1 6 1995
UTAH DIVISION OF OIL, GAS AND MINING

CHAPTER FIVE
500 GENERAL ENGINEERING

510 INTRODUCTION

Sunnyside Coal Company's (SCC) refuse disposal area has been acquired by Sunnyside Cogeneration Associates (SCA) to serve as a long-term supply of waste fuel for its coal mine waste-to-energy facility, located adjacent to the SCA Permit Area. SCA has contracted with SCC to provide alternative disposal for coal mine waste generated by SCC, both past and future. SCA's alternative energy project has been approved by the Federal Energy Regulatory Commission as a Qualifying Facility, based on the usage of coal mine waste as fuel in its fluidized-bed combustion boiler. SCA will use both "active waste", from the processing plant, and "accumulated waste", from the refuse pile, as sources of waste fuel for the facility. SCA's fueling plan will require excavation of coal mine waste from the existing refuse pile, beginning as early as January 1993 and continuing for approximately thirty years.

Based on SCA's contract for the sale of electricity to Utah Power and Light, handling coal mine waste to serve as an alternative energy fuel will be a consistent and continuous process. Coal mine waste that continues to be generated by SCC's preparation plant will also be factored into SCA's fueling strategy, which can allow direct acceptance of coal mine waste at the facility, or temporary placement within the refuse disposal area prior to utilization.

SCA will excavate coal mine waste from the refuse disposal area based on detailed sampling and analyses and a materials handling plan which will be continuously updated by SCA. Excavation of the coal mine waste will be considerate of material quality, pile and embankment stability, and mine operation. Over the life of SCA's facility, nearly all of the coal mine waste will be burned to generate electricity, resulting in significantly less material that will need final reclamation. Final reclamation of the refuse pile will be accomplished after all of the coal mine waste is either burned as a fuel, or repositioned within the refuse disposal area for final disposal, if determined to be non-combustible (i.e., ashes, rock).

Currently, there are activities that occur outside the Sunnyside Cogeneration Associates Permit Boundary that have significant bearing on the operations of the SCA Cogeneration facility and the SCA Permit Area. These activities occur in conjunction with the SCA permit site.

As discussed in other areas of the PAP, Sunnyside Coal Company's (SCC) refuse disposal area has been acquired by SCA to serve as a long-term supply of waste fuel for its coal mine waste-to-energy facility, located adjacent to the SCA Permit Area. SCA has contracted with SCC to provide alternative disposal for coal mine waste generated by SCC, both past and future. In order for SCA to acquire the quality and quantity of fuel for the cogeneration facility, coarse refuse is accepted from the SCC mine on a continual basis. The refuse is stockpiled in designated areas within the SCA permit site then mixed with existing refuse on the SCA permit site and transported to the cogeneration facility. These operations (acceptance of coarse refuse from the SCC mine and the transporting of coarse refuse to the cogeneration facility) require access roads that extend beyond the limits of the SCA permit boundary. The main access for the transferring of coarse refuse from the SCC mine begins at the SCC mine and extends to the northeast side of the SCA Permit boundary. To transport coarse refuse from the SCA Permit Area to the cogeneration facility, the access road lies within the SCA permit boundary.

INCORPORATED
EFFECTIVE
AUG 1 6 1995
UTAH DIVISION OIL, GAS AND MINING

In addition to the access roads mentioned above, there are access roads to the south of the SCA permit boundary that are utilized for the purposes of the SCA operations. These roads are utilized to access areas of the SCA permit site that are inaccessible from the north side of the permit area. They are used by authorized contractors of SCA for the purposes of such activities as: water quality monitoring, periodic inspections and site maintenance as needed.

Activities that occur outside the SCA Permit Area also include watersheds outside the permit area that drain into contained areas within the permit area. Chapter Seven of the PAP outlines these watersheds and the areas to which they drain. Also included are detailed maps and calculations showing the amount of water from each watershed and the capacity of the drainages and ponds that were constructed to contain them. In some instances, a drainage commencing within the SCA Permit Area may extend beyond the limits of the SCA permit boundary. An example of this is the outlet of the Pasture Sediment Pond. In such a case, SCA commits to maintaining this drainage and providing the necessary information to the Division to show its adequacy to handle the required storm event. In the event that this occurs elsewhere within the permit area, SCA will handle each instance on a case-by-case basis and notify the DOGM of any proposed changes to the PAP.

It should be noted that the SCA operations encompass a number of entities that do not necessarily lie or operate within the permitted area. These non-mining related activities that occur outside of the permitted area are done so in a controlled manner under permits from other agencies, and have been incorporated into the entire design and plan of the SCA Cogeneration facility. SCA understands the implications of utilizing entities outside of the permitted area and commits to maintaining the applicable areas in accordance with DOGM requirements.

This chapter includes operation plans, reclamation plans, design criteria, and performance standards that are applicable to the SCA Permit Area. Design calculations are referenced in the appropriate sections along with maps, plans, and cross-sections. It should be noted that Eckhoff, Watson and Preator Engineering has relied on data, maps, plans, and cross-sections from previous approved permits for the SCC mines in order to verify locations of geologic structures, sediment ponds, borrow areas, road culverts, creeks, etc. that lie within the SCA Permit Area. In this chapter where the "permit area" is referred to, the SCA Permit Area is to be assumed unless the larger overall area for the SCC is specifically referred to in the text as the "original SCC permit area."

512 CERTIFICATION

512.100 Cross Sections and Maps

The maps and cross sections, associated with this permit, have been prepared and certified by, or under the direction of, a qualified, registered professional engineer or land surveyor, with assistance from experts in related fields such as hydrology, geology and landscape architecture. These maps and cross sections will be updated as required by the Division of Oil, Gas and Mining (DOGM).

A list of plates that are applicable to the SCA Permit Area as required under R645-301-512.100 through R645-301-512.260 are included in the General Table of Contents.

512.110 Mine Workings

No underground mine workings exist within the SCA Permit Area. Plate 5-7 delineates the extent of surface areas previously disturbed by mining activities. Plate 5-8 shows the existing surface and subsurface facilities and features which have been associated with mining activities.

INCORPORATED
EFFECTIVE
AUG 1 6 1995
UTAH DIVISION OIL, GAS AND MINING

512.120 Surface Facilities and Operations

Plate 5-1 shows the location and size of existing areas of spoil, waste, coal development waste, and non-coal waste disposal, dams, embankments, other impoundments, and water treatment facilities within the SCA Permit Area. Plate 4-5 shows the facilities used for crushing and screening the coal refuse as well as the features associated with the adjacent cogeneration facility.

Plate 5-5 shows topsoil pile cross sections.

512.130 Surface Configurations

As required under sections 542.300 and 302-200, maps or cross sections detailing plans for soil stabilization, compacting and grading are referenced in the appropriate sections.

512.140 Hydrology

Maps required under R645-301-722 and R645-301-731.700 are included in Chapter Seven, Hydrology. Among these requirements are locations of subsurface water within or adjacent to the SCA Permit Area, intakes for current users, water monitoring stations, sedimentation ponds, coal processing waste banks, and embankments. Maps are provided only when the above mentioned locations fall within the SCA Permit Area or within an adjacent area that will potentially impact the SCA Permit Area.

512.150 Geologic Cross Sections and Maps

Chapter Six, section 622, includes information applicable to the SCA Permit Area such as: elevations and locations of test borings and core samples; nature, depth, and thickness of coal seams; and crop lines and strike and dip of the coal.

512.200 thru 512.260 Plans and Engineering Designs

Plate 5-1 outlines the locations of excess spoil, durable rock fills, coal mine waste, impoundments and other surface facilities within and adjacent to the SCA Permit Area. Plate 5-2 outlines the locations of primary roads. It also shows any variance from the original contour that is expected to occur. The design of the Excess Spoil Disposal Area is found in Chapter Nine and Appendices 9-2 and 9-5. Coal mine waste will also be placed in the Excess Spoil Disposal Area.

513 COMPLIANCE WITH MSHA REGULATIONS AND MSHA APPROVALS

513.100 thru 513.800 Compliance with 30 CFR

Coal mine waste dams, embankments, impoundments, sedimentation ponds, refuse piles, the extinguishing of coal mine waste fires, and the nature and timing of reclamation activities will meet the performance standards set forth by the MSHA. The embankments and impoundments that are regulated by the MSHA are shown in Plate 5-4, Slope Stability Criteria Map. Where applicable, SCA will comply with all MSHA Regulations and obtain all required MSHA Approvals.

INCORPORATED
EFFECTIVE
AUG 1 6 1995
UTAH DIVISION OIL, GAS AND MINING

A geotechnical report prepared in February 1987 and updated in June 1992 by Rollins, Brown and Gunnell (Appendix 5-5) shows that the existing East and West Slurry Cell Embankments meet the requirements of 30 CFR 77.214 and 77.215. The cross-sections for this report are shown in Plate 5-6.

Coal mine waste fires will be extinguished by placing two-feet of borrow material over the burning area. Only those persons authorized by the Operator, and who are familiar with the appropriate procedures will extinguish any coal mine waste fires. The source of borrow material may be any of the borrow areas within the Permit Area where excess material exists beyond that needed for reclamation, or from spoil material removed during the mining process, or from an acceptable off-site source. When an area is mined, the fire control materials will be placed in the Excess Spoil Disposal Area.

514 INSPECTIONS

514.100 thru 514.140 Excess Spoil Disposal Area

A professional engineer or specialist experienced in the construction of earth and rock fills will periodically inspect the fill throughout the construction period (at least four times a year) as required by the DOGM. These inspections will be performed during critical construction periods such as: foundation preparation, installation of final surface drainage systems, and the final graded and revegetated fill. A schedule for periodic inspections is provided in Table 5-1.

A certified report will be provided by the professional engineer promptly after each inspection. The report will include any appearances of instability, structural weakness, and other hazardous conditions as well as the results of samples taken to determine the acid/toxic potential. The report on the drainage system and protector filters will also contain color photographs taken in compliance with section 514.130 thru 514.133 that are representative of the site. Photographs will accompany each certified report and will include physical features of the site in order to specifically and clearly identify the site.

A copy of each inspection report will be retained at the SCA cogeneration power plant site and at the office of the Engineer. A copy of the inspection report will be promptly sent by SCA to the Division, as required.

514.200 thru 514.250 Refuse Piles

A professional engineer or specialist experienced in the construction of earth and waste structures will inspect the refuse pile on a regular basis (at least four times a year) as required by the DOGM. These inspections will be performed during critical construction periods such as: foundation preparation, placement of underdrains and protective filter systems, installation of final surface drainage systems, and the final graded and revegetated facility. A schedule of periodic inspections is provided in Table 5-1.

A certified report will be provided by the professional engineer promptly after each inspection. The report will include any evidence of instability, structural weakness, and other hazardous conditions. The report will also contain color photographs taken in compliance with section 514.240 that are representative of the site. Photographs will accompany each certified report and will include physical features of the site in order to specifically and clearly identify the site.

A copy of each inspection report will be retained at the SCA cogeneration power plant site and at the office of the Engineer. A copy of the inspection report will be promptly sent by SCA to the Division, as required.

INCORPORATED
EFFECTIVE:
AUG 10 1995
August 7, 1995
UTAH DIVISION OIL, GAS AND MINING

514.300 thru 514.330 Impoundments

A professional engineer, or other qualified person designated by SCA, will inspect the impoundments within the SCA Permit Area. Impoundments, subject to MSHA, 30 CFR 77 216, will be inspected in accordance with the MSHA Approved Program found in Appendix 5-8. Quarterly inspections will be conducted on impoundments NOT subject to MSHA, 30 CFR 77.216. The various impoundments and their classification are outlined in Plate 5-4. A schedule for periodic inspections is provided in Table 5-1.

After each inspection, the qualified registered professional engineer will provide a certified report that the impoundment has been constructed and maintained as designed in accordance with the R645-302 Rules. The report will include information necessary to satisfy regulations set forth under section 514.312. Such information will include discussion of instability, structural weakness or other hazardous conditions, depth and elevation of any impoundment waters, existing storage capacity, any existing or required monitoring procedures and instrumentation, and any other aspects of the structure affecting stability. A copy of the report will be retained at the SCA cogeneration power plant site and at the offices of the Engineer. A copy of the inspection report will be promptly sent by SCA to the Division, as required.

Appendix 5-1 presents the slope stability analyses for the Railcut, Pasture and Borrow Area Sediment Ponds. Appendix 5-3 presents slope stability analyses for the Clear Water Pond and Slurry Ponds One and Two. Appendix 5-4 contains information on slope stability for the Coarse Refuse Toe and Old Coarse Refuse Road Sediment Ponds. The above mentioned impoundments have been determined to be stable under existing conditions.

515 REPORTING AND EMERGENCY PROCEDURES

515.100 Slides and Other Damage

At any time a slide occurs which may have an adverse effects on public property, health, safety, or the environment, SCA will notify DOGM by the fastest available means and comply with remedial measures required by DOGM.

515.200 Impoundment Hazards

At any time there is a potential impoundment hazard, SCA will notify DOGM by the best available means. DOGM will be informed of the emergency procedures formulated for public protection and remediation.

515.300 thru 315.322 Procedures for Temporary Cessation of Operations

Before temporary cessation of excavation of the refuse pile or reclamation activities for a period of 30 days or more, or as soon as it is known that a temporary cessation will extend beyond 30 days, SCA will submit to DOGM a notice of intention to cease or abandon operations. It is understood by SCA that temporary abandonment will not relieve a person of their obligation to comply with any provisions of the approved permit. Regular monitoring and inspections will continue. Maintenance will occur if needed.

INCORPORATED
EFFECTIVE:
AUG 1 6 1995
UTAH DIVISION OIL, GAS AND MINING

All surface facilities will be effectively secured in areas in which there are no current operations, but in which operations are to be resumed under an approved permit.

In the event of a cessation, regulations 515.321 and 515.322 will be addressed. A statement of the exact number of surface acres and the horizontal and vertical extent of subsurface strata which have been affected in the SCA Permit Area prior to such temporary cessation or abandonment, the extent and kind of reclamation of surface area which will have been accomplished, and identification of the backfilling, regrading, revegetation, environmental monitoring, and water treatment activities that will continue during the temporary cessation.

516 SLIDE PREVENTION

There are no underground mining operations within the SCA Permit Area, nor are there any exposed coal seams. Therefore, barriers for the purpose of slide prevention near coal seams will not be used within the SCA Permit Area.

520 OPERATION PLAN

521 GENERAL

The following sections contain plans, appropriate maps, cross sections, narratives, descriptions, and calculations in accordance with the requirements relevant to this section. Practices will be limited to excavation and handling of coal mine waste to segregate non-combustibles, and redisposing such materials in accordance with 301-536. SCA's operating plan for its adjacent alternative energy power plant is designed to substantially reduce the final quantity of waste materials which will ultimately remain within the existing refuse disposal area. Reclamation essentially commences with the first ton of waste removed and used as an alternative energy fuel. Reclamations will be a continuous process over the life of the power plant, ultimately grading, covering and revegetating any remaining non-combustible materials. Descriptions of these operations are included in the following sections as well as Chapter Nine, Mining Plan.

521.100 thru 521.190 Cross Sections and Maps

See Section 512 for a list of plates that are pertinent to fulfilling the requirements of this section.

521.200 thru 521.270 Signs and Markers Specifications

The location and details for Permit boundary, historic sites, disturbed area and topsoil stockpiles are shown in Plate 3-1, Pre- and Post Law Disturbance. All required signs and markers are in place and maintained in compliance with R645-301-521.200.

1. The signs and markers will be posted, maintained, and removed by SCA;

2. They will be a uniform design (so that they can be easily seen), be made of a durable material, and conform to local laws and regulations;

INCORPORATED
EFFECTIVE:
AUG 16 1995
August 7, 1995
UTAH DIVISION OIL, GAS AND MINING