ANDALEX RESOURCES, INC.
WILDCAT LOADOUT

C/007/033

RESPONSE TO
DIVISION ORDER DO-04
(WIND-BLOWN FINES)

VOLUME 2
MAPS

SUBMITTED: AUGUST 13, 2009

File in:
☐ Confidential
☒ Shelf
☐ Expandable
Refer to Record No 0008 Date 08/13/2009
In C 0070033, 2009, Incoming
For additional information

0008

COPY

ANDALEX
RESOURCES, INC.

P.O. BOX 910
EAST CARBON, UTAH 84520
PHONE (435) 888-4000
FAX (435) 888-4017

Utah Division of Oil, Gas & Mining
Coal Program
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

August 13, 2009

Attn: Daron Haddock
Permit Supervisor

RE: Andalex Resources, Inc.,
Wildcat Loadout, C/007/0033
Response to DO-04

Dear Mr. Haddock:

Enclosed are five copies of the response to Division Order DO-05, for the wind-blown fines.

Should you have any questions regarding this submittal, please feel free to contact me.

Sincerely,

David Shaver
Resident Agent

File in:
☐ Confidential
☒ Shelf
☐ Expandable
Refer to Record No 0008 Date 08132009
In C0070033 2009 Incoming
For additional information

RECEIVED
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DIV. OF OIL, GAS & MINING

Form DOGM - C1 (Last Revised August 3, 2009)

COPY

File Folder # 3

APPLICATION FOR PERMIT PROCESSING

Permit Change ☐	New Permit ☐	Renewal ☐	Transfer ☐	Exploration ☐	Bond Release ☐

Permit Number: 007/033

Mine: Wildcat Loadout

Permittee: **Andalex Resources, Inc.**

Title of Proposal: Response to DO-04

Description, include reason for application and timing required to implement:.

Instructions: *If you answer yes to any of the first 8 questions (gray), submit the application to the Salt Lake Office. Otherwise, you may submit it to your reclamation specialist.*

☐ Yes	☐ No	1. Change in the size of the Permit Area? _____ acres Disturbed Area? 8 acres ☒ increase ☐ decrease.
☒ Yes	☐ No	2. Is the application submitted as a result of a Division Order?
☐ Yes	☒ No	3. Does application include operations outside a previously identified Cumulative Hydrologic Impact Area?
☐ Yes	☒ No	4. Does application include operations in hydrologic basins other than as currently approved?
☐ Yes	☒ No	5. Does application result from cancellation, reduction or increase of insurance or reclamation bond?
☐ Yes	☒ No	6. Does the application require or include public notice/publication?
☒ Yes	☐ No	7. Does the application require or include ownership, control, right-of-entry, or compliance information?
☐ Yes	☒ No	8. Is proposed activity within 100 feet of a public road or cemetery or 300 feet of an occupied dwelling?
☐ Yes	☒ No	9. Is the application submitted as a result of a Violation?
☐ Yes	☒ No	10. Is the application submitted as a result of other laws or regulations or policies? Explain:
☐ Yes	☒ No	11. Does the application affect the surface landowner or change the post mining land use?
☒ Yes	☐ No	12. Does the application require or include underground design or mine sequence and timing?
☒ Yes	☐ No	13. Does the application require or include collection and reporting of any baseline information?
☒ Yes	☐ No	14. Could the application have any effect on wildlife or vegetation outside the current disturbed area?
☒ Yes	☐ No	15. Does application require or include soil removal, storage or placement?
☒ Yes	☐ No	16. Does the application require or include vegetation monitoring, removal or revegetation activities?
☒ Yes	☐ No	17. Does the application require or include construction, modification, or removal of surface facilities?
☒ Yes	☐ No	18. Does the application require or include water monitoring, sediment or drainage control measures?
☒ Yes	☐ No	19. Does the application require or include certified designs, maps, or calculations?
☐ Yes	☒ No	20. Does the application require or include subsidence control or monitoring?
☒ Yes	☐ No	21. Have reclamation costs for bonding been provided for?
☐ Yes	☒ No	22. Does application involve a perennial stream, a stream buffer zone or discharges to a stream?
☐ Yes	☒ No	23. Does the application affect permits issued by other agencies or permits issued to other entities?

☐ **Attach _3_ complete copies of the application.**

I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations, herein. (R645-301-123)

Signed - Name - Position - Date 8/10/09 agent

Subscribed and sworn to before me this 10th day of August, 2009

Notary Public

My Commission Expires: March 27, 2013

Attest: STATE OF Utah
COUNTY OF Carbon

Notary Public
LINDA KERNS
Commission #578211
My Commission Expires
March 27, 2013
State of Utah

Received by Oil, Gas & Mining

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ASSIGNED TRACKING NUMBER

Form DOGM - C2 (Last Revised 6/93)

File Folder # 3

Application for Permit Processing
Detailed Schedule of Changes to the MRP

COPY

Title of Application: Response to DO-04

Permit Number: 007/033

Mine: Wildcat Loadout

Permittee: Andalex Resources, Inc

Provide a detailed listing of all changes to the mining and reclamation plan which will be required as a result of this proposed permit application. Individually list all maps and drawings which are to be added, replaced, or removed from the plan. Include changes of the table of contents, section of the plan, pages, or other information as needed to specifically locate, identify and revise the existing mining and reclamation plan. Include page, section and drawing numbers as part of the description.

			DESCRIPTION OF MAP, TEXT, OR MATERIALS TO BE CHANGED
☐ ADD	☒ REPLACE	☐ REMOVE	Contents: Appendices, Plates
☐ ADD	☒ REPLACE	☐ REMOVE	Chapter 1 Text: all
☐ ADD	☒ REPLACE	☐ REMOVE	Chapter 2 Text: all
☐ ADD	☒ REPLACE	☐ REMOVE	Chapter 3 Text: all
☐ ADD	☒ REPLACE	☐ REMOVE	Chapter 4 Text: all
☐ ADD	☒ REPLACE	☐ REMOVE	Chapter 5 Text: all
☐ ADD	☒ REPLACE	☐ REMOVE	Chapter 6 Text: all
☐ ADD	☒ REPLACE	☐ REMOVE	Chapter 7 Text: all
☐ ADD	☒ REPLACE	☐ REMOVE	Chapter 8 Text: all
☐ ADD	☒ REPLACE	☐ REMOVE	App A, Part 1 (U+C)
☐ ADD	☒ REPLACE	☐ REMOVE	App A, Part 2
☒ ADD	☐ REPLACE	☐ REMOVE	App B, Part A-12
☐ ADD	☒ REPLACE	☐ REMOVE	App B, Part B
☐ ADD	☒ REPLACE	☐ REMOVE	App B, Part C
☐ ADD	☒ REPLACE	☐ REMOVE	App B, Part D
☒ ADD	☐ REPLACE	☐ REMOVE	App D, Supplement (soils)
☐ ADD	☐ REPLACE	☒ REMOVE	App K
☒ ADD	☐ REPLACE	☐ REMOVE	App P (Response to DO-04)
☐ ADD	☐ REPLACE	☒ REMOVE	App Q
☒ ADD	☐ REPLACE	☐ REMOVE	App R (Drainage Control Plan)
☐ ADD	☐ REPLACE	☐ REMOVE	
☐ ADD	☐ REPLACE	☐ REMOVE	
☐ ADD	☐ REPLACE	☐ REMOVE	

Any other specific or special instructions required for insertion of this proposal into the Mining and Reclamation Plan?

Page 1

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Form DOGM - C2 (Last Revised 6/93)

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Application for Permit Processing
Detailed Schedule of Changes to the MRP

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			DESCRIPTION OF MAP, TEXT, OR MATERIALS TO BE CHANGED
☐ ADD	☒ REPLACE	☐ REMOVE	Plate 1
☐ ADD	☒ REPLACE	☐ REMOVE	Plate 2
☐ ADD	☒ REPLACE	☐ REMOVE	Plates 3 thru 7 with Plates
☐ ADD	☐ REPLACE	☐ REMOVE	3A thr 3I
☐ ADD	☐ REPLACE	☒ REMOVE	Plates 4 thru 7
☐ ADD	☒ REPLACE	☐ REMOVE	Plate 10
☐ ADD	☒ REPLACE	☐ REMOVE	Plate 11
☐ ADD	☒ REPLACE	☐ REMOVE	Plate 12
☐ ADD	☒ REPLACE	☐ REMOVE	Plate 13
☐ ADD	☒ REPLACE	☐ REMOVE	Plate 15
☐ ADD	☒ REPLACE	☐ REMOVE	Plate 16
☐ ADD	☒ REPLACE	☐ REMOVE	Plate 17
☐ ADD	☐ REPLACE	☒ REMOVE	Plate 18, 19, 20, 21
☐ ADD	☒ REPLACE	☐ REMOVE	Plate 29
☐ ADD	☐ REPLACE	☐ REMOVE	
☐ ADD	☐ REPLACE	☐ REMOVE	
☐ ADD	☐ REPLACE	☐ REMOVE	
☐ ADD	☐ REPLACE	☐ REMOVE	
☐ ADD	☐ REPLACE	☐ REMOVE	
☐ ADD	☐ REPLACE	☐ REMOVE	
☐ ADD	☐ REPLACE	☐ REMOVE	
☐ ADD	☐ REPLACE	☐ REMOVE	
☐ ADD	☐ REPLACE	☐ REMOVE	

Any other specific or special instructions required for insertion of this proposal into the Mining and Reclamation Plan?

Page 2

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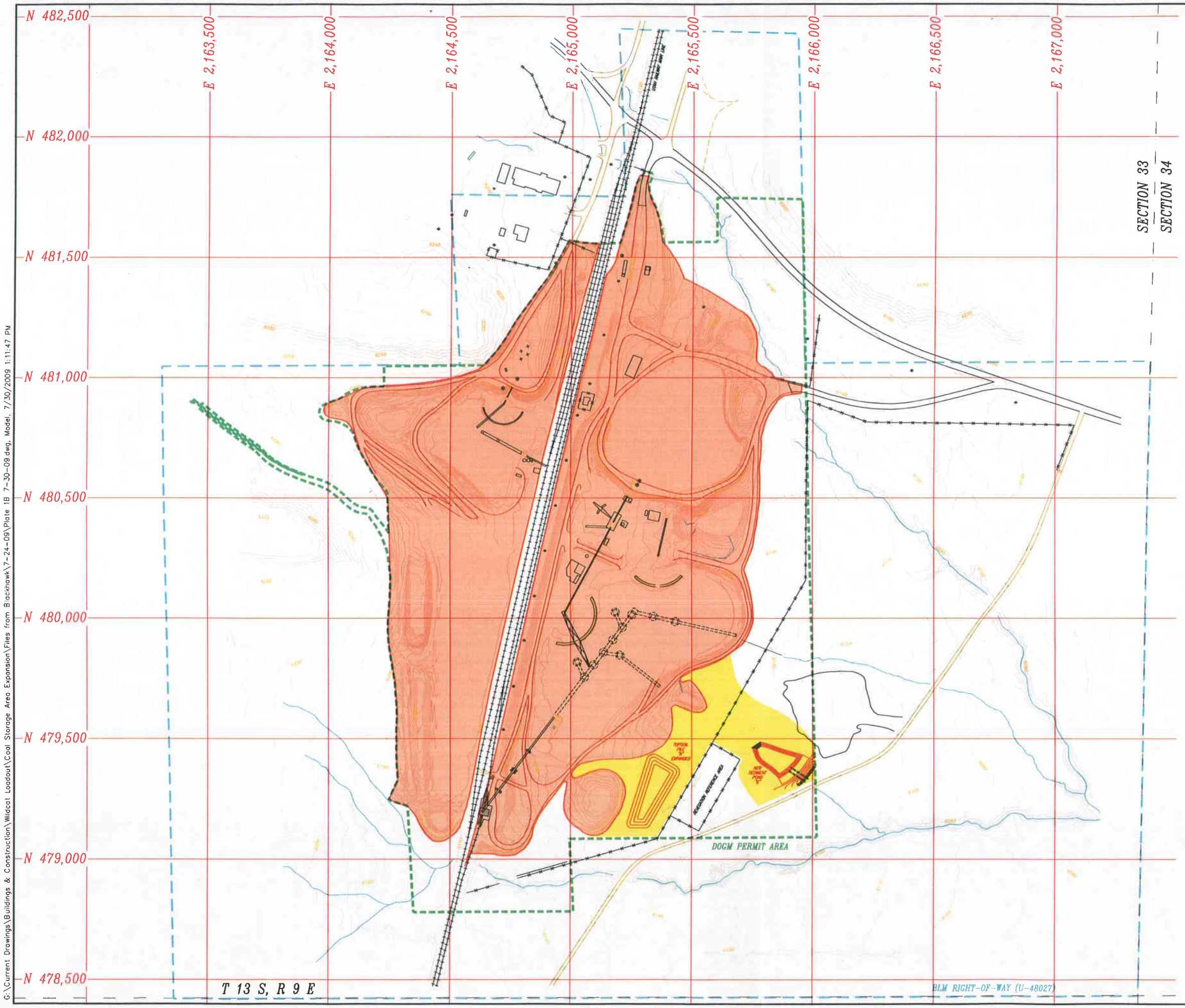
PLATE 1B

DISTURBED AREAS



DISTURBED AREAS:

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EXISTING WEST:	25.51 AC.	PROPOSED WEST:	25.51 AC.
EXISTING EAST:	41.40 AC.	PROPOSED EAST:	47.75 AC.
TOTAL:	66.91 AC.	TOTAL:	73.26 AC.

ADDITIONAL ACREAGE: 6.35 AC.

EXISTING DISTURBED AREA:

PROPOSED DISTURBED AREA (DO-04):

I CERTIFY THIS MAP TO BE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

UTAH REGISTERED #6449561 David W. Hibbs 7/30/09 PROFESSIONAL ENGINEER

N

ANDALEX RESOURCES, INC.

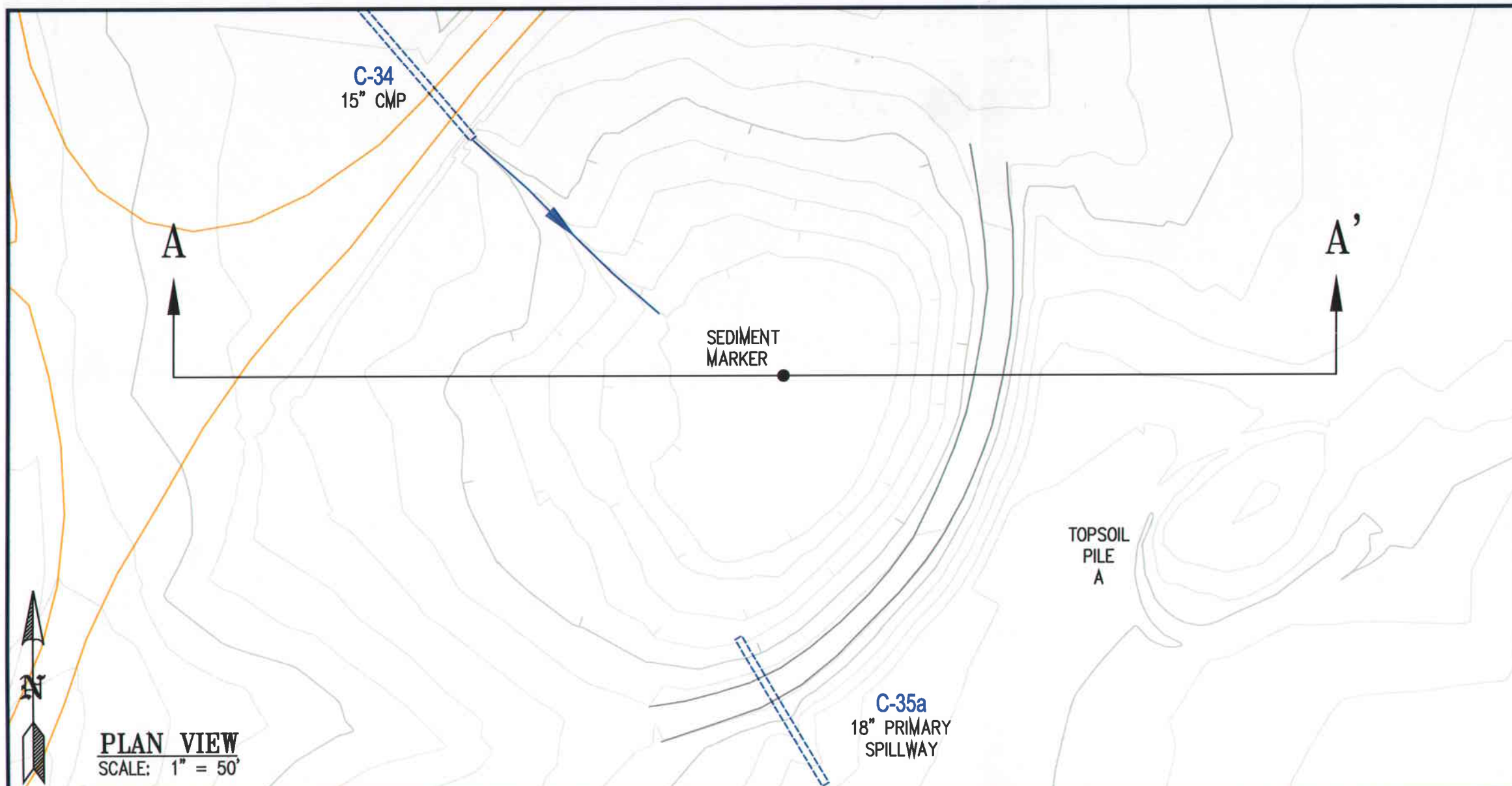
WILDCAT LOADOUT
DISTURBED AREAS

REVION NUMBER: 1	SCALE: AS SHOWN
DATE: JULY 2009	PLATE 1B

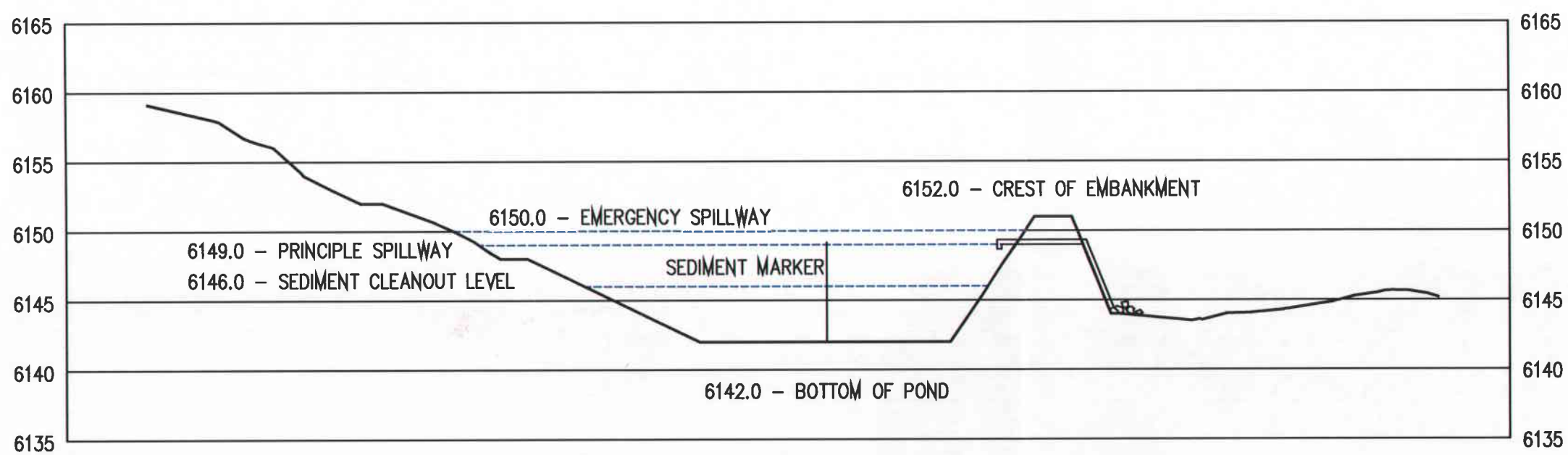
G:\Current Drawings\Buildings & Construction\Wildcat Loadout\Coal Storage Area Expansion\Files from Blackhawk\7-24-09\Plate 1B 7-30-09.dwg, Model, 7/30/2009 1:11:47 PM

PLATE 3A

SEDIMENT POND A



PLAN VIEW
SCALE: 1" = 50'



SECTION A–A'
VERTICAL EXAGGERATION 5X

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 10'

STAGE VOLUME
SEDIMENT POND "A"

ITEM	ELEVATION	VOLUME (Ac. Ft.)
CREST OF EMBANKMENT	6152.0	5.556
EMERGENCY SPILLWAY	6150.0	3.715
PRINCIPAL SPILLWAY	6149.0	2.972
SEDIMENT CLEANOUT LEVEL	6146.0	1.285
POND BOTTOM	6142.0	0

VOLUME:

REQUIRED: 1.047 Ac. Ft.
EXISTING: 2.972 Ac. Ft.

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UTAH REGISTERED #154168 DAN W. GUY 7/31/09 PROFESSIONAL ENGINEER

ANDALEX RESOURCES, INC.

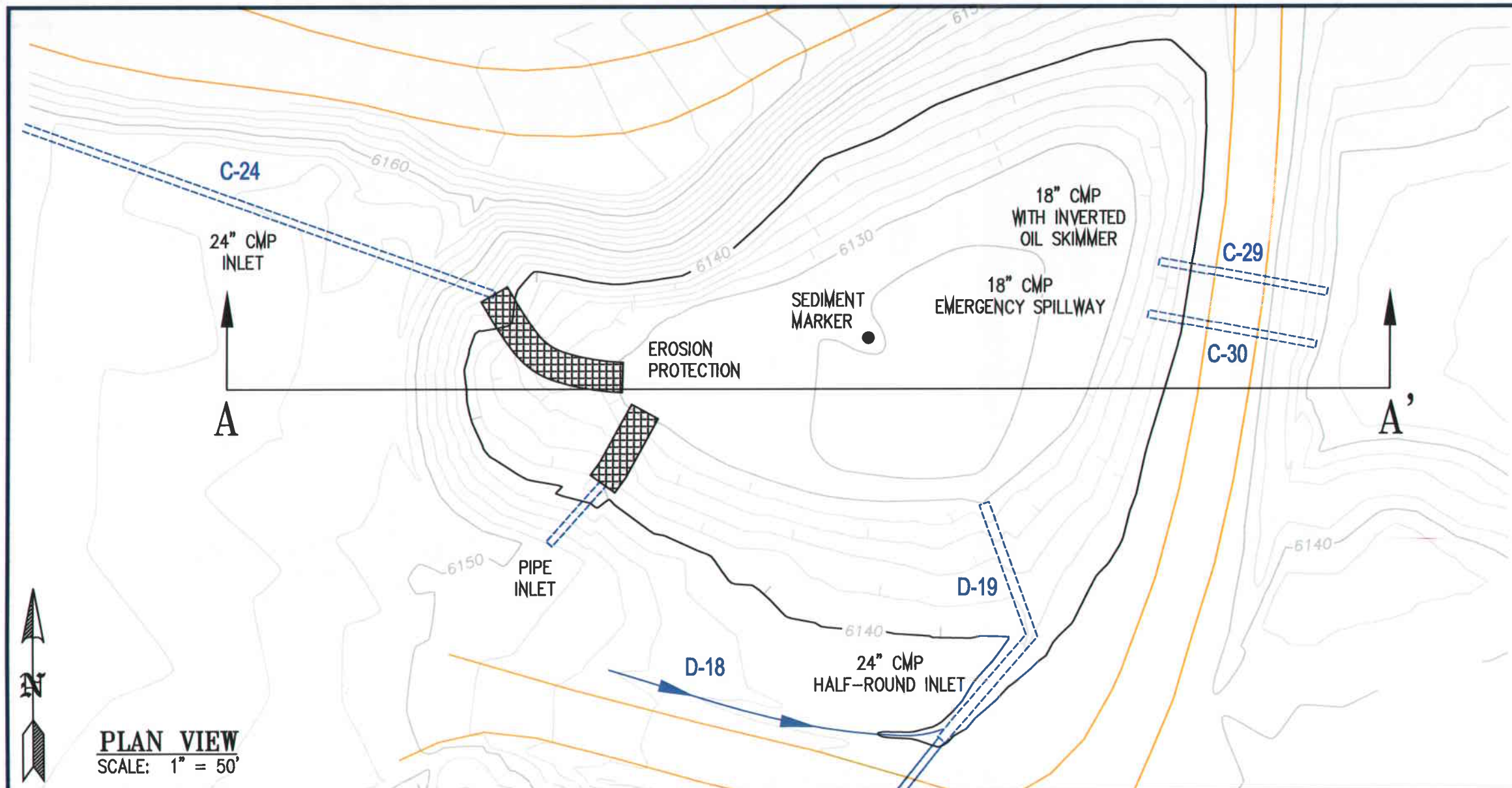
WILDCAT LOADOUT
SEDIMENT POND "A"
EXISTING

REVISION NUMBER: 1	SCALE: AS SHOWN
DATE: JULY 2009	PLATE 3A

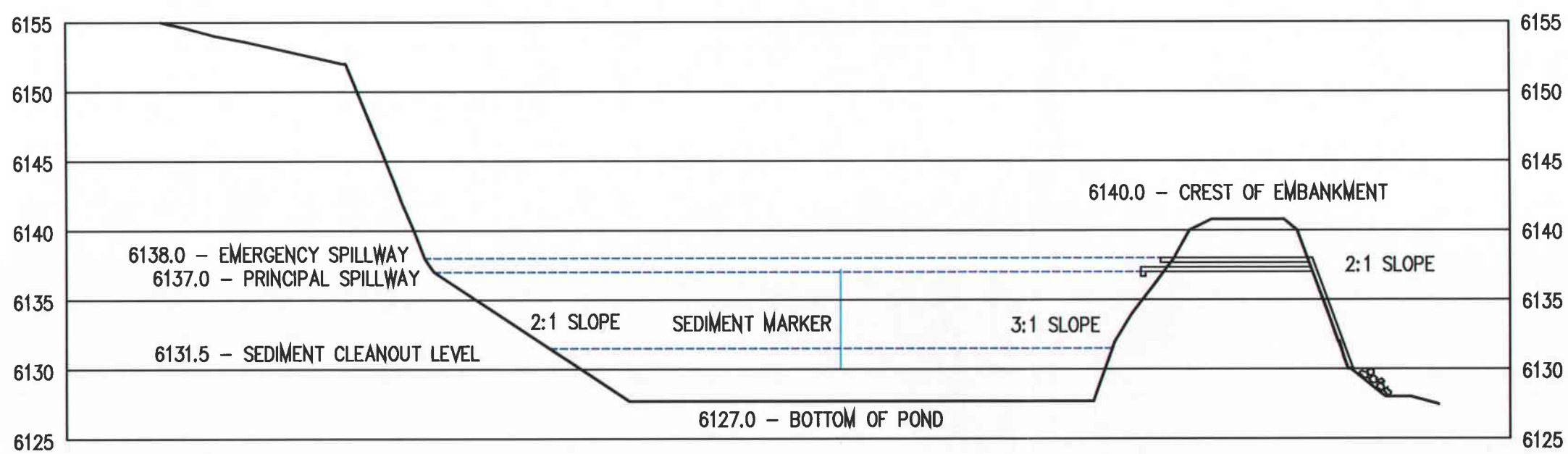
G:\Current Drawings\Buildings & Construction\Wildcat Loadout\Coal Storage Area Expansion\Files from Blackhawk\8-11-09\POND DRAWINGS.dwg, Pond A, 8/11/2009 4:03:00 PM

PLATE 3C

SEDIMENT POND C



PLAN VIEW
SCALE: 1" = 50'



SECTION A–A'
VERTICAL EXAGGERATION 5X

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 10'

STAGE VOLUME
SEDIMENT POND "C"

ITEM	ELEVATION	VOLUME (Ac. Ft.)
CREST OF EMBANKMENT	6140.0	7.724
EMERGENCY SPILLWAY	6138.0	5.803
PRINCIPAL SPILLWAY	6137.0	4.955
SEDIMENT CLEANOUT LEVEL	6131.5	1.421
POND BOTTOM	6127.0	0

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VOLUME:

REQUIRED: 1.836 Ac. Ft.
EXISTING: 4.955 Ac. Ft.

UTAH REGISTERED PROFESSIONAL ENGINEER #154168 DAN W. GUY 7/31/09

ANDALEX RESOURCES, INC.

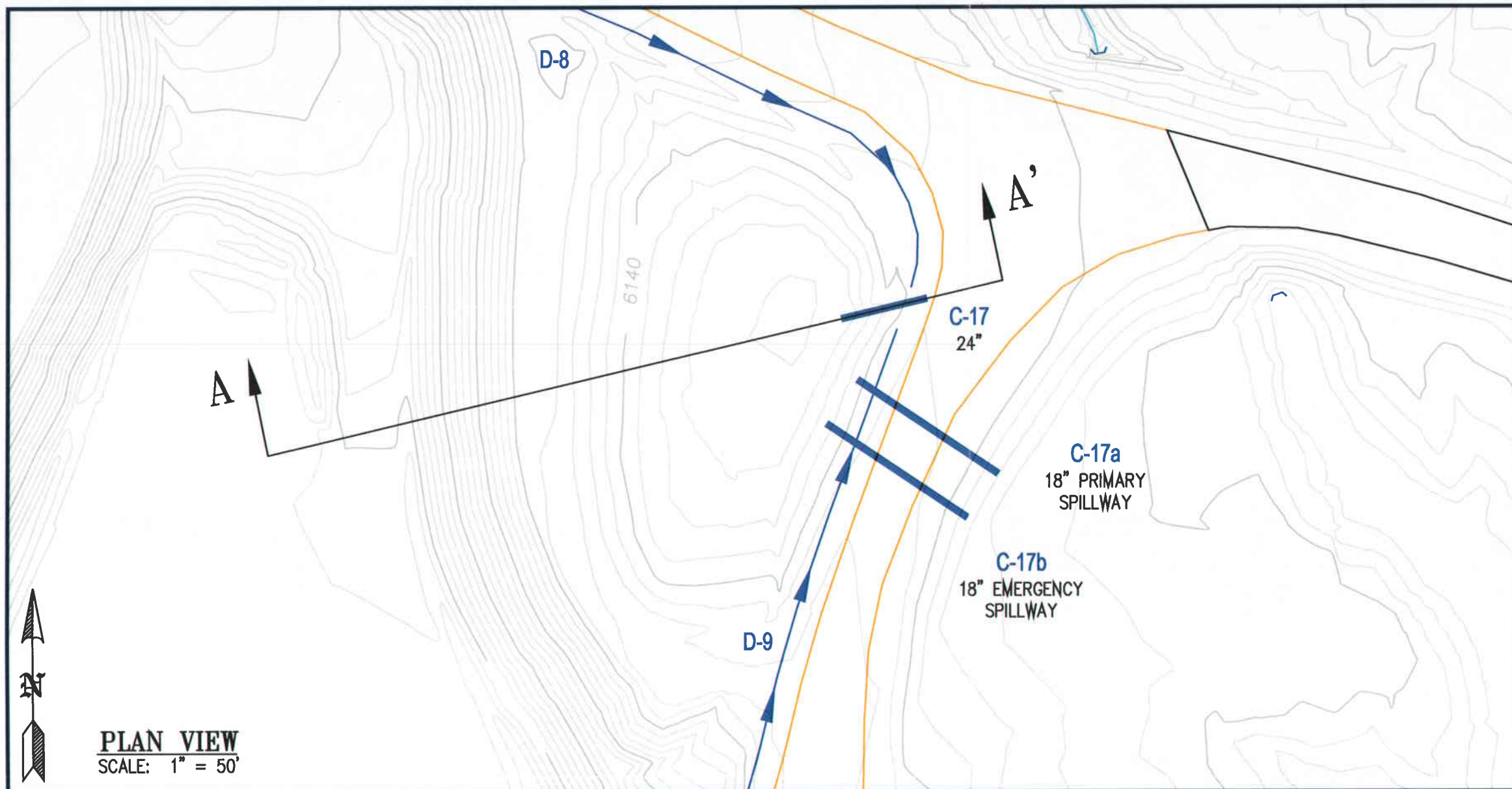
WILDCAT LOADOUT
SEDIMENT POND "C"
EXISTING

REVISION NUMBER: 1	SCALE: AS SHOWN
DATE: JULY 2009	PLATE 3C

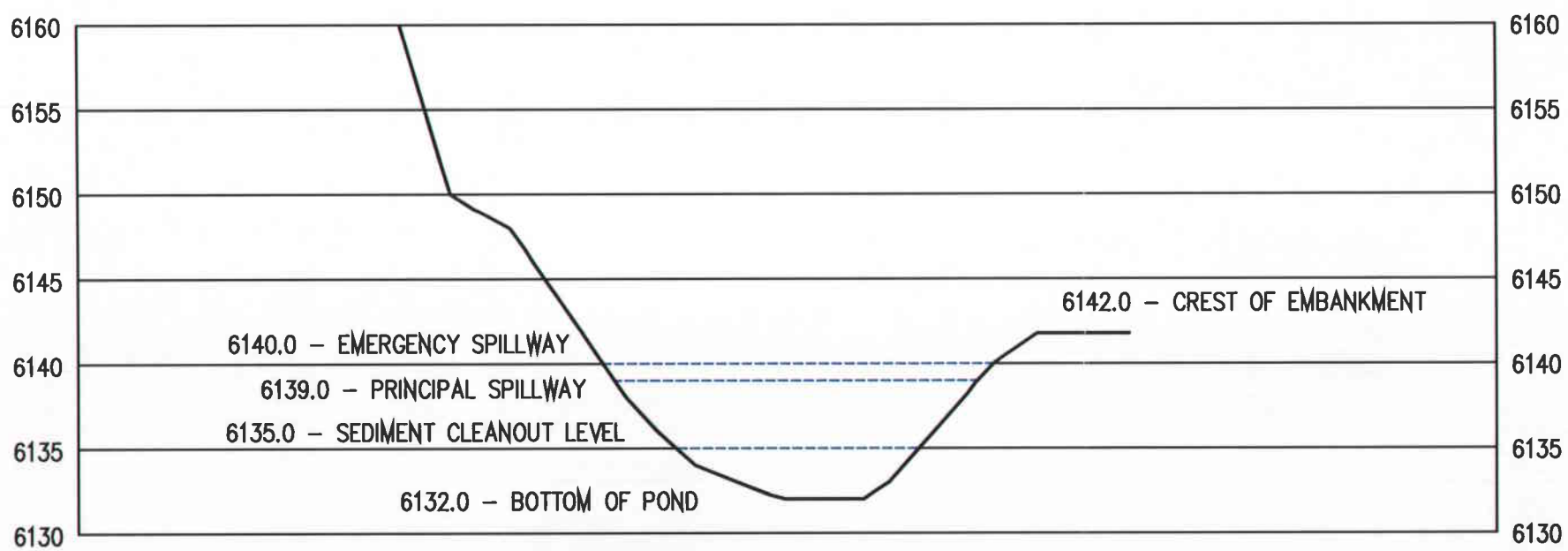
G:\Current Drawings\Buildings & Construction\Wildcat Loadout\Coal Storage Area Expansion\Files from Blackhawk\8-11-09\POND DRAWINGS.dwg, Pond C, 8/11/2009 4:08:46 PM

PLATE 3D

SEDIMENT POND D



PLAN VIEW
SCALE: 1" = 50'



SECTION A–A'
VERTICAL EXAGGERATION 5X

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 10'

STAGE VOLUME
SEDIMENT POND "D"

ITEM	ELEVATION	VOLUME (Ac. Ft.)
CREST OF EMBANKMENT	6142.0	2.211
EMERGENCY SPILLWAY	6140.0	1.448
PRINCIPAL SPILLWAY	6139.0	1.131
SEDIMENT CLEANOUT LEVEL	6135.0	0.252
POND BOTTOM	6132.0	0

VOLUME:

REQUIRED: 0.857 Ac. Ft.
EXISTING: 1.131 Ac. Ft.

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UTAH REGISTERED PROFESSIONAL ENGINEER #154168 DAN W. GUY 7/31/09

ANDALEX RESOURCES, INC.

WILDCAT LOADOUT
SEDIMENT POND "D"
EXISTING

REVISION NUMBER: 1	SCALE: AS SHOWN
DATE: JULY 2009	PLATE 3D

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PLATE 3E

SEDIMENT POND E

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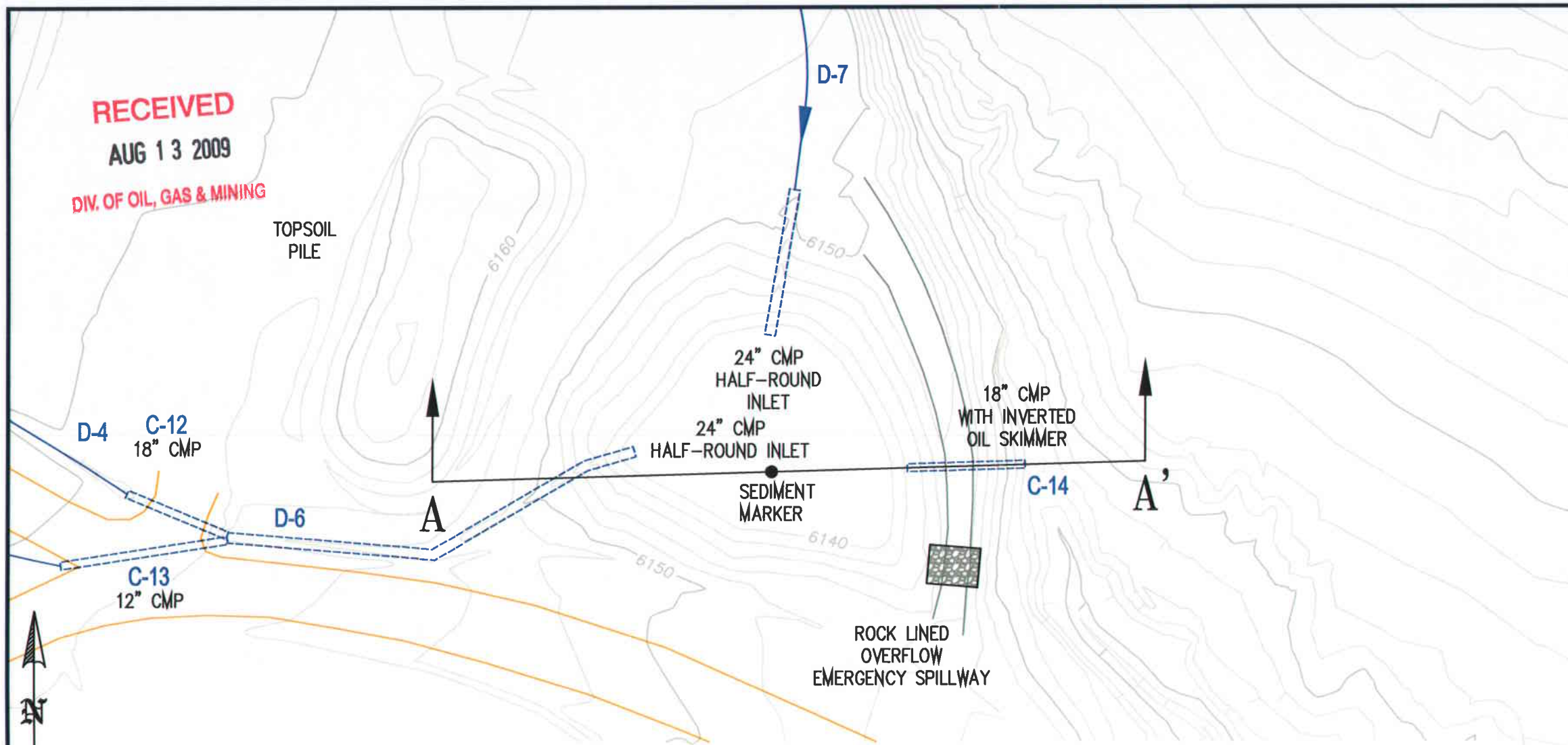
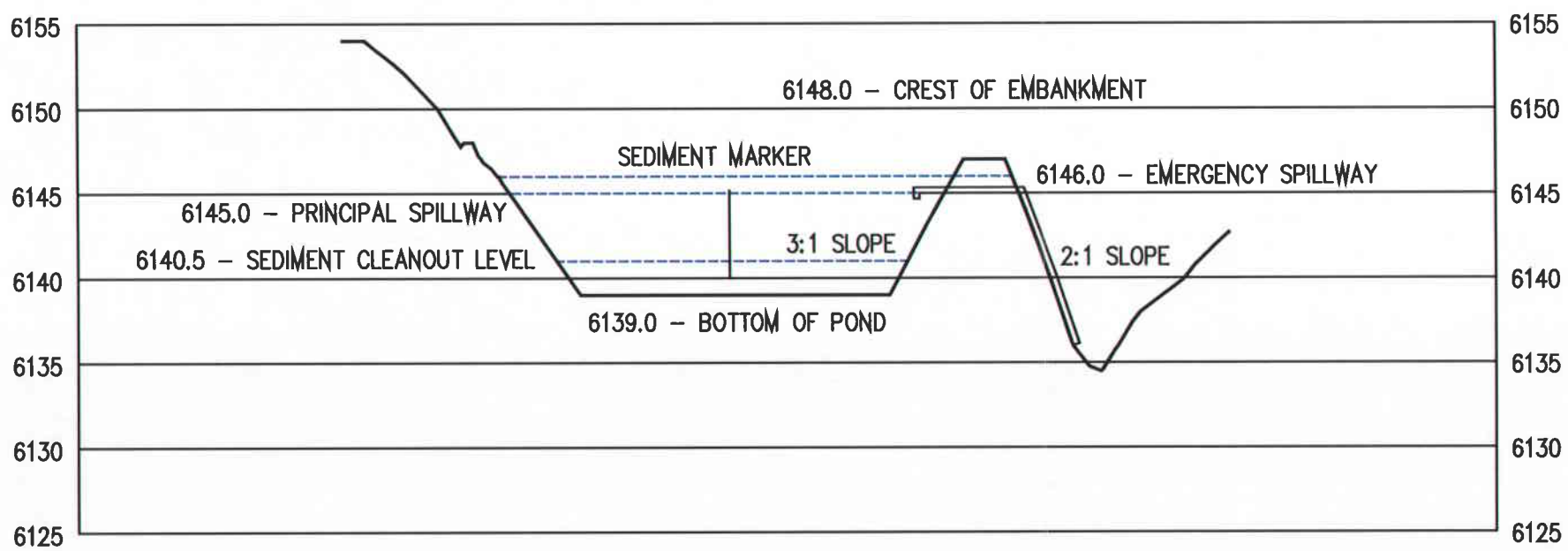


PLAN VIEW
SCALE: 1" = 50'



SECTION A–A'
VERTICAL EXAGGERATION 5X

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 10'

STAGE VOLUME
SEDIMENT POND "E"

ITEM	ELEVATION	VOLUME (Ac. Ft.)
CREST OF EMBANKMENT	6148.0	2.023
EMERGENCY SPILLWAY	6146.0	1.372
PRINCIPAL SPILLWAY	6145.0	1.092
SEDIMENT CLEANOUT LEVEL	6140.5	0.184
POND BOTTOM	6139.0	0

VOLUME:

REQUIRED: 1.028 Ac. Ft.
DESIGNED: 1.092 Ac. Ft.

UTAH REGISTERED #154168 DAN W. GUY PROFESSIONAL ENGINEER 7/31/09

ANDALEX RESOURCES, INC.

WILDCAT LOADOUT
SEDIMENT POND "E"
EXISTING

REVISION NUMBER: 1	SCALE: AS SHOWN
DATE: JULY 2009	PLATE 3E

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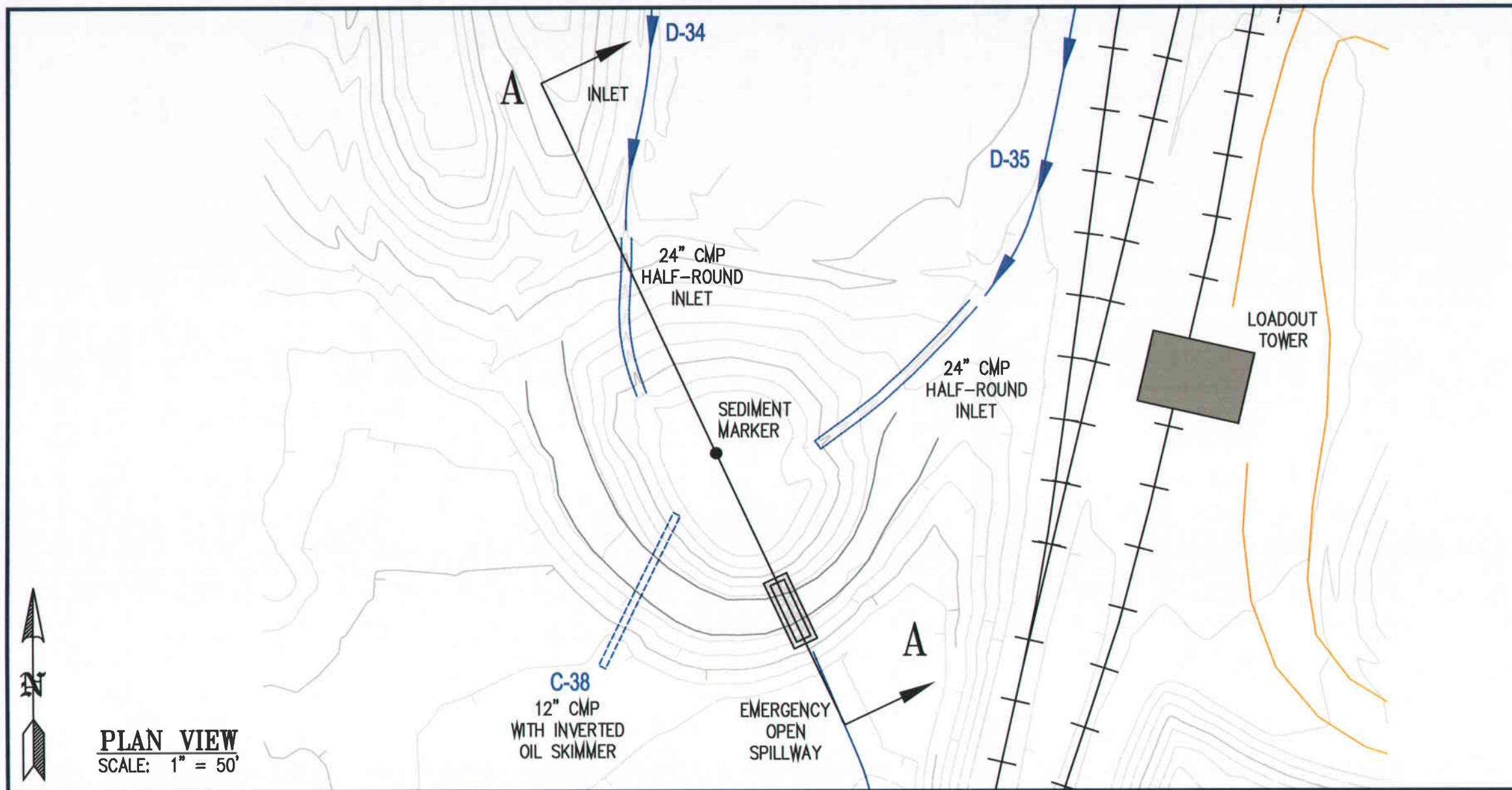
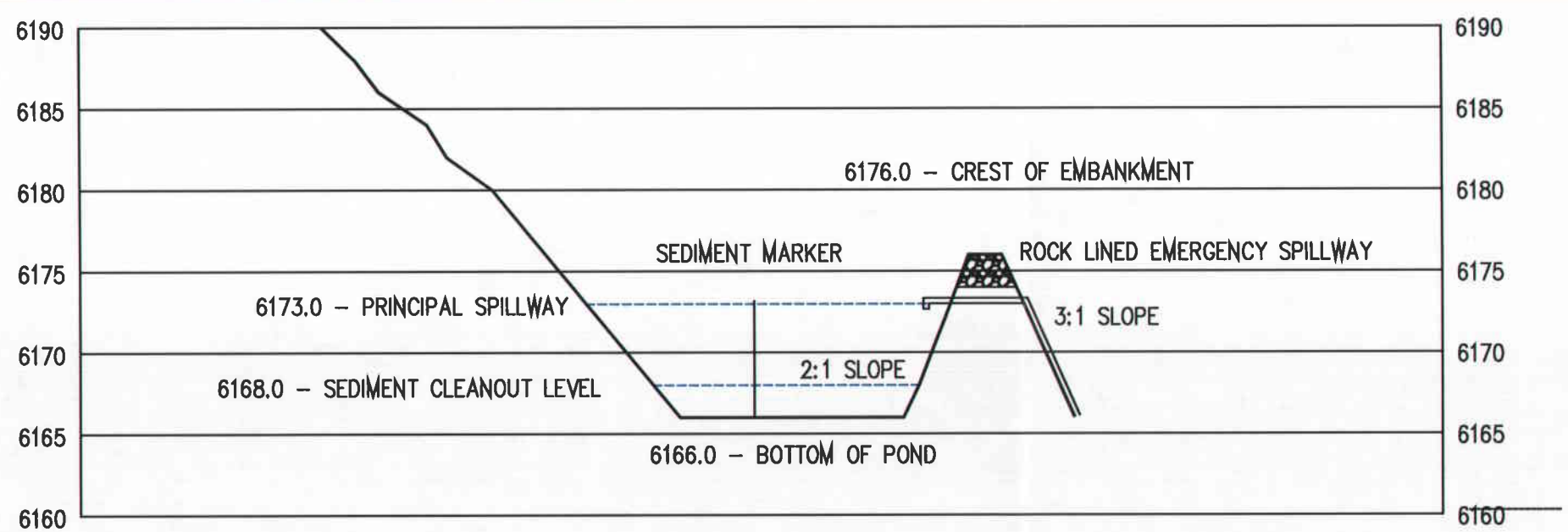
PLATE 3F

SEDIMENT POND F



PLAN VIEW
SCALE: 1" = 50'



SECTION A–A'
VERTICAL EXAGGERATION 5X

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 10'

STAGE VOLUME
SEDIMENT POND "F"

ITEM	ELEVATION	VOLUME (Ac. Ft.)
CREST OF EMBANKMENT	6176.0	1.553
EMERGENCY SPILLWAY	6174.0	1.073
PRINCIPAL SPILLWAY	6173.0	0.869
SEDIMENT CLEANOUT LEVEL	6168.0	0.161
POND BOTTOM	6166.0	0

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VOLUME:

REQUIRED: 0.506 Ac. Ft.
DESIGNED: 0.869 Ac. Ft.

UTAH REGISTERED #154168 DAN W. GUY PROFESSIONAL ENGINEER 7/31/09

ANDALEX RESOURCES, INC.

WILDCAT LOADOUT
SEDIMENT POND "F"
EXISTING

REVISION NUMBER: 1	SCALE: AS SHOWN
DATE: JULY 2009	PLATE 3F

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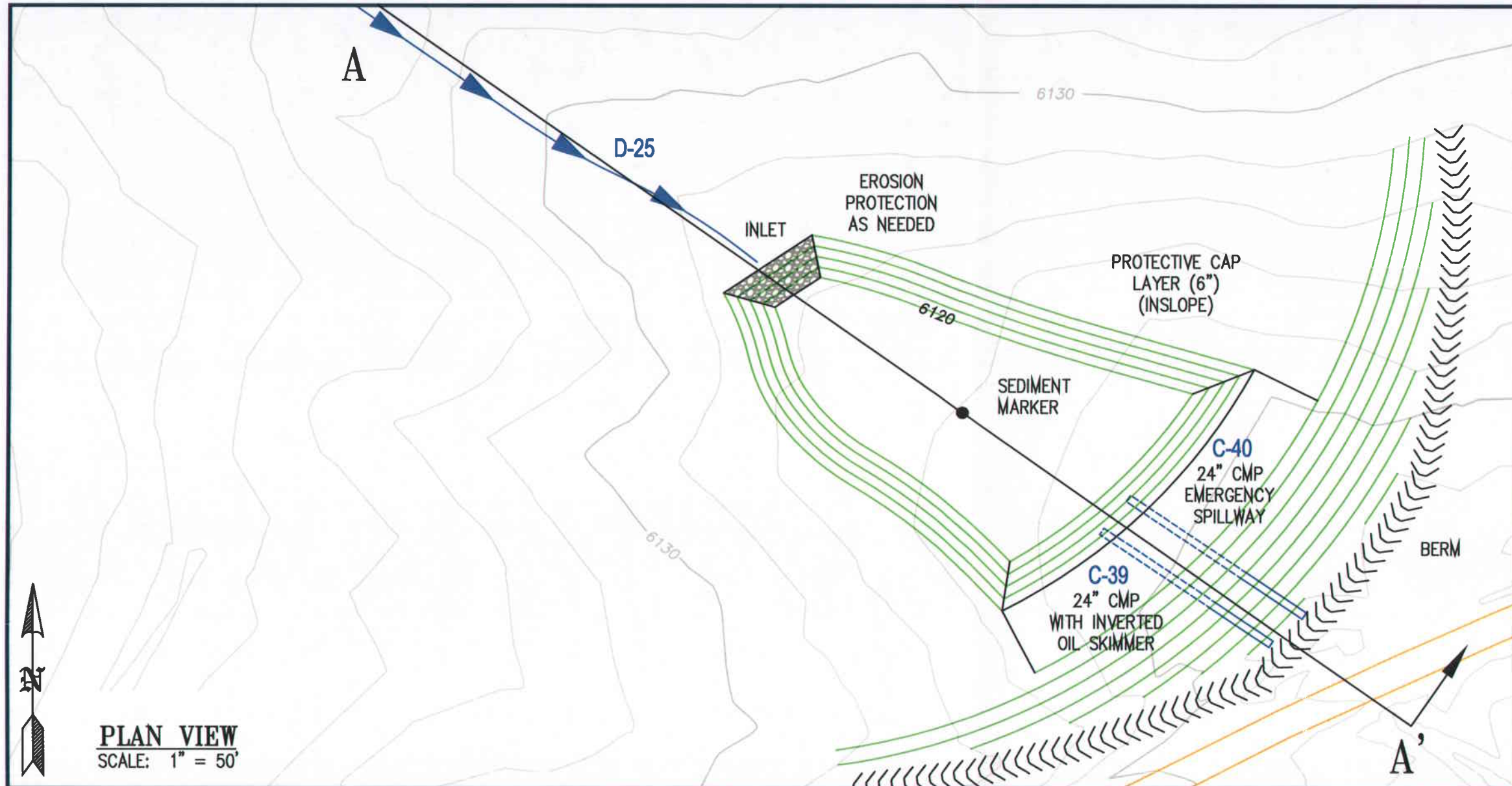
PLATE 3G

SEDIMENT POND G



PLAN VIEW
SCALE: 1" = 50'

STAGE VOLUME
SEDIMENT POND "G"

ITEM	ELEVATION	VOLUME (Ac. Ft.)
CREST OF EMBANKMENT	6128.0	2.415
EMERGENCY SPILLWAY	6126.0	1.676
PRINCIPAL SPILLWAY	6125.0	1.342
SEDIMENT CLEANOUT LEVEL	6122.0	0.474
POND BOTTOM	6120.0	0

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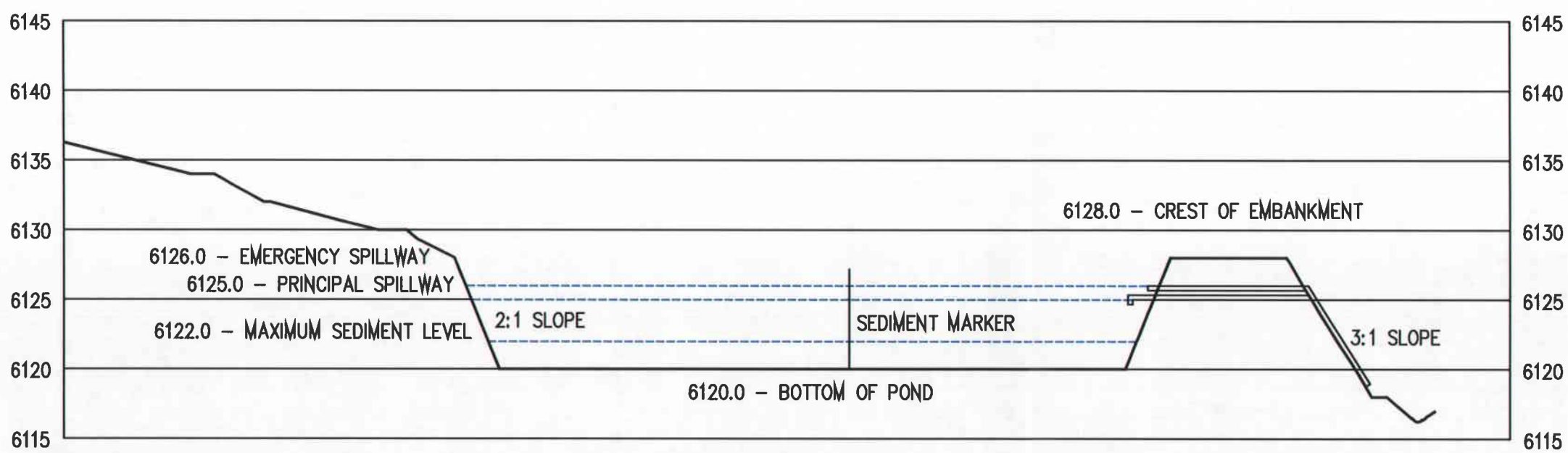
VOLUME:

REQUIRED: 0.716 Ac. Ft.

DESIGNED: 1.342 Ac. Ft.



SECTION A–A'
VERTICAL EXAGGERATION 5X

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 10'

UTAH REGISTERED PROFESSIONAL ENGINEER #154168 DAN W. GUY 7/31/09

ANDALEX RESOURCES, INC.

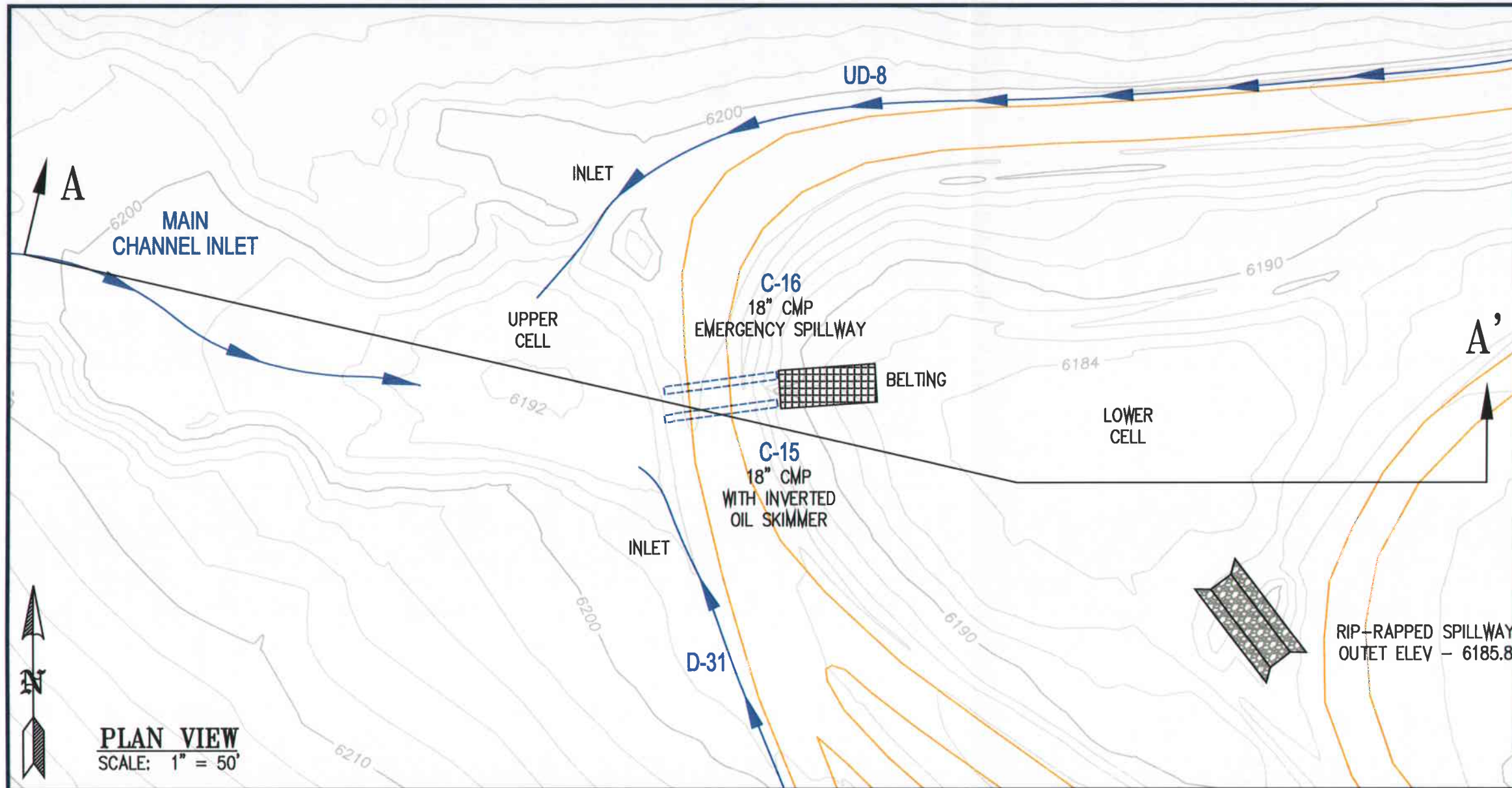
WILDCAT LOADOUT
SEDIMENT POND "G"
PROPOSED

REVISION NUMBER: 1	SCALE: AS SHOWN
DATE: JULY 2009	PLATE 3G

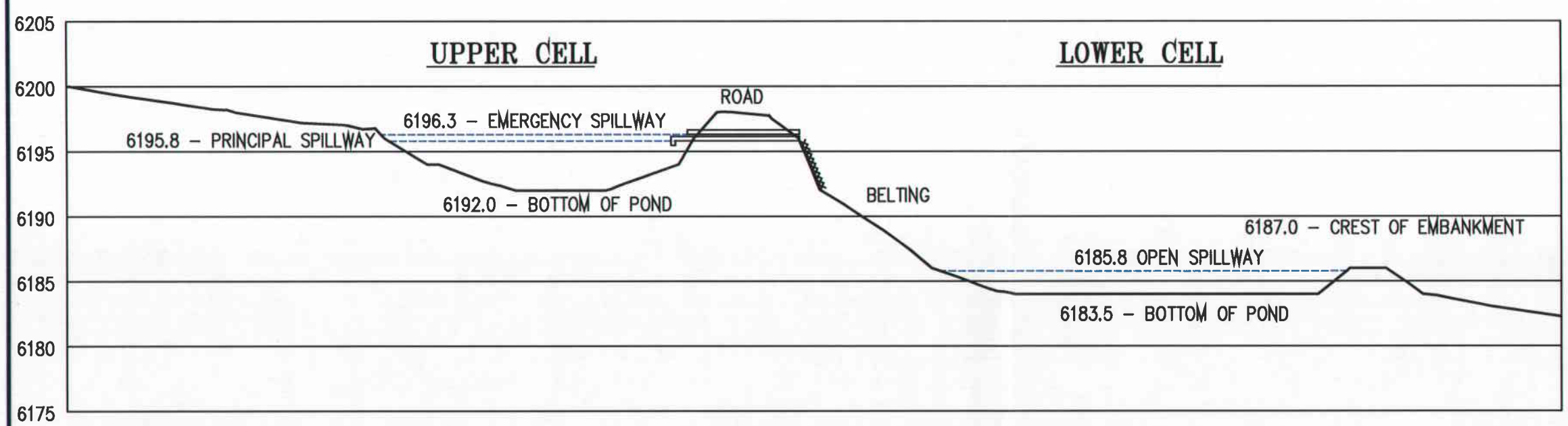
G:\Current Drawings\Buildings & Construction\Wildcat Loadout\Coal Storage Area Expansion\Files from Blackhawk\8-11-09\POND DRAWINGS.dwg, Pond G, 8/11/2009 3:45:29 PM

PLATE 3H

PERMANENT IMPOUNDMENT



PLAN VIEW
SCALE: 1" = 50'



SECTION A–A'
VERTICAL EXAGGERATION 5X

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 10'

STAGE VOLUME
"PERMANENT IMPOUNDMENT"

ITEM	ELEVATION	VOLUME (Ac. Ft.)
BOTTOM OF UPPER CELL	6192.0	0
EMERGENCY SPILLWAY	6196.3	0.539
PRINCIPAL SPILLWAY	6195.8	0.437
BOTTOM OF LOWER CELL	6183.5	0.437
OVERFLOW FOR LOWER CELL	6185.8	1.114

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AUG 13 2009
DIV. OF OIL, GAS & MIN.

VOLUME:

REQUIRED: 1.031 Ac. Ft.
EXISTING: 1.114 Ac. Ft.

NOTE:
NOT A SEDIMENT POND.

ANDALEX RESOURCES, INC.

WILDCAT LOADOUT
PERMANENT IMPOUNDMENT
EXISTING

REVISION NUMBER: 1	SCALE: AS SHOWN
DATE: JULY 2009	PLATE 3H

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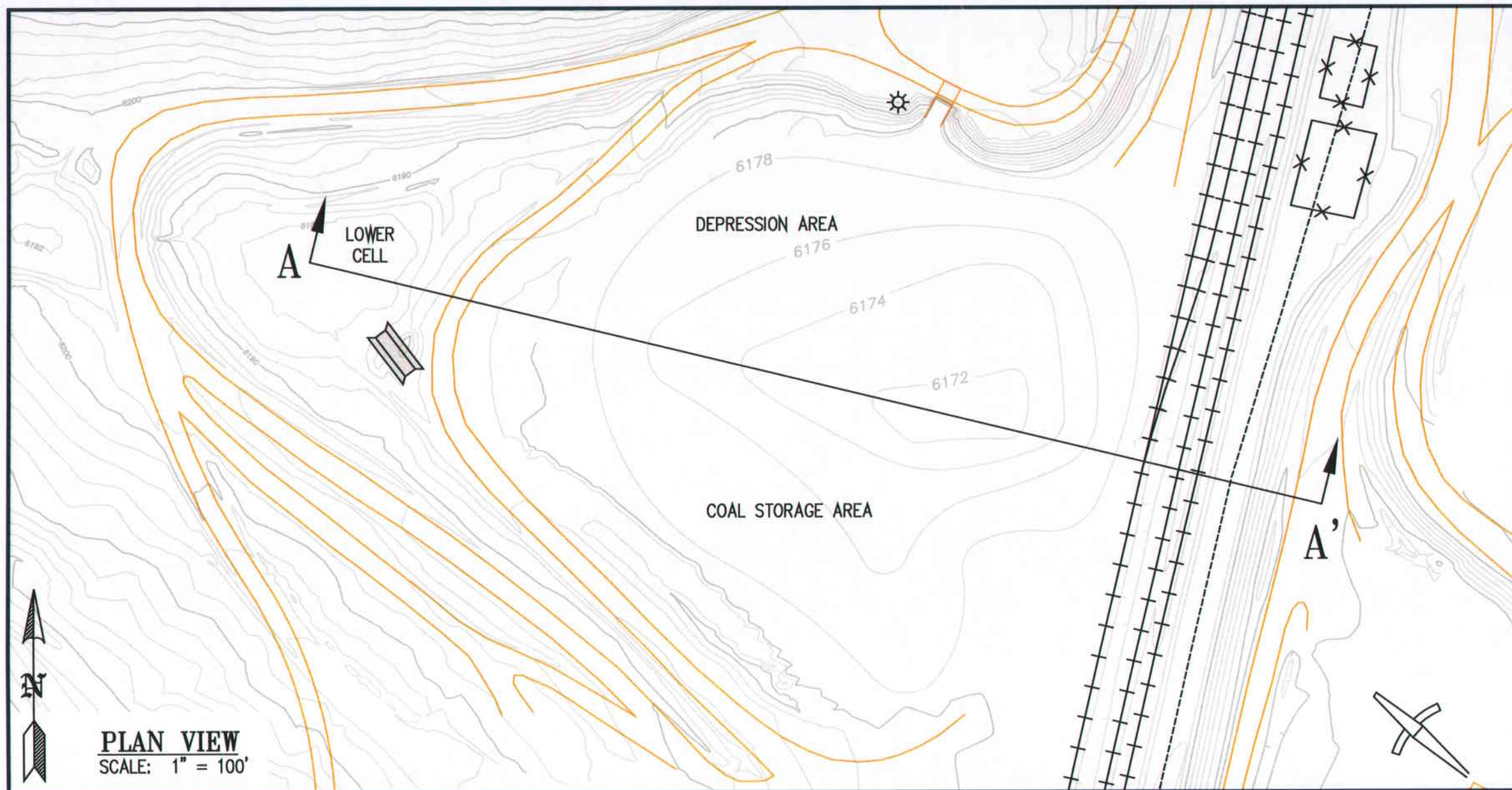
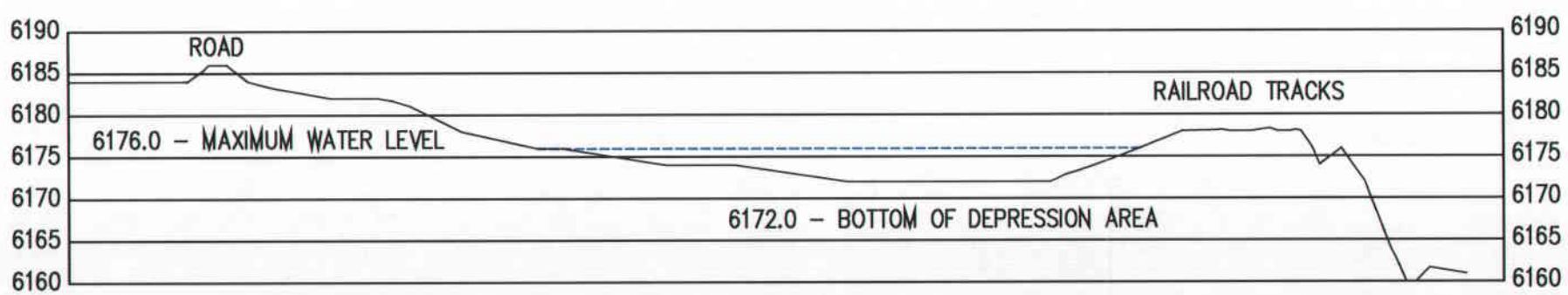
PLATE 3I

DEPRESSION AREA



PLAN VIEW
SCALE: 1" = 100'



SECTION A–A'
VERTICAL EXAGGERATION 5X

HORIZONTAL SCALE: 1" = 100'
VERTICAL SCALE: 1" = 20'

STAGE VOLUME
"DEPRESSION AREA"

ITEM	ELEVATION	VOLUME (Ac. Ft.)
BOTTOM OF DEPRESSION AREA	6172.0	0
MAXIMUM WATER LEVEL	6176.0	4.990
TRACK LEVEL	6178.0	11.534

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VOLUME:

REQUIRED: 2.604 Ac. Ft.
EXISTING: 4.990 Ac. Ft.

NOTE:
NOT A SEDIMENT POND.

UTAH REGISTERED PROFESSIONAL ENGINEER #154168 DAN W. GUY 7/31/09

ANDALEX RESOURCES, INC.

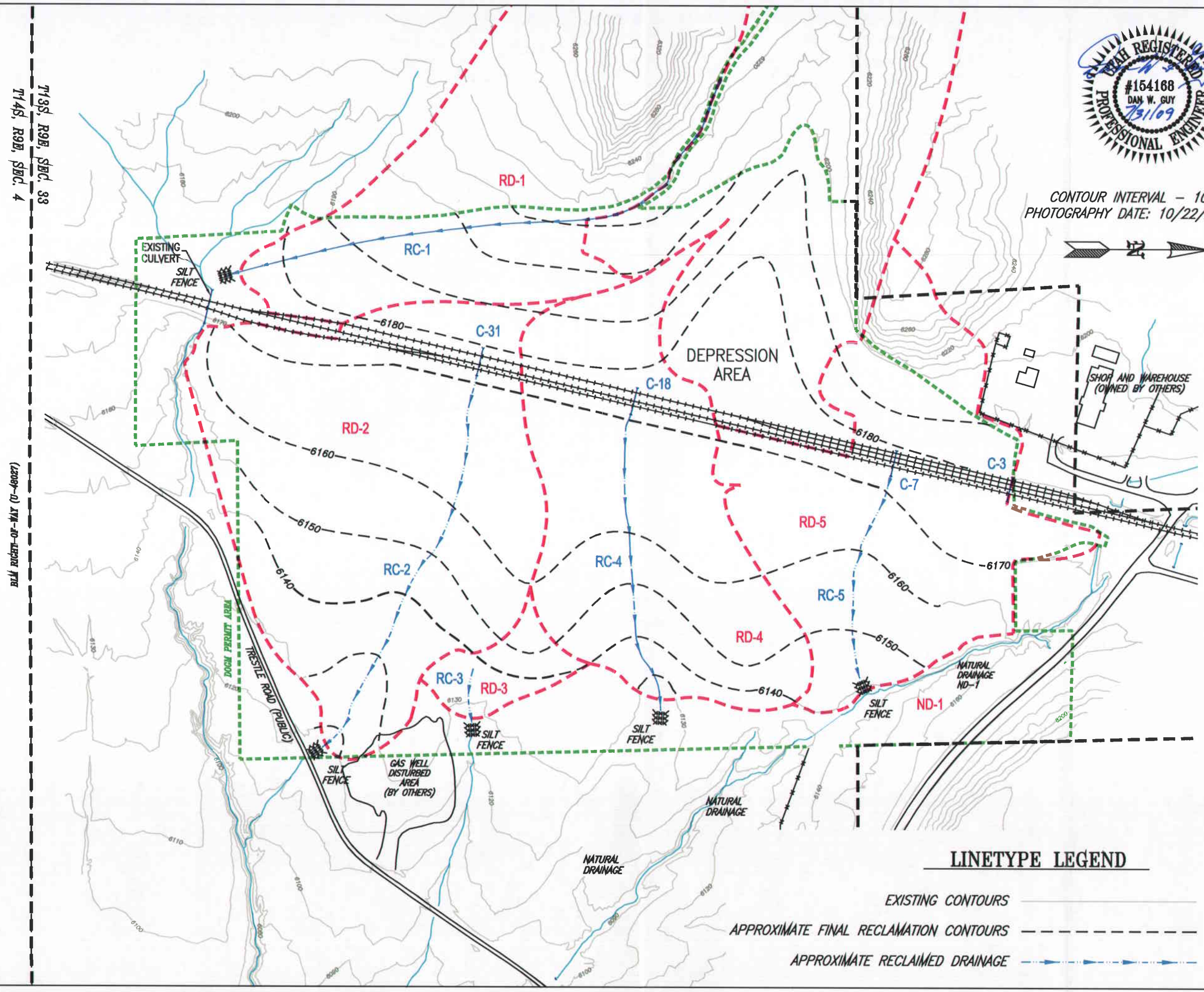
WILDCAT LOADOUT
DEPRESSION AREA
EXISTING

REVISION NUMBER: 1	SCALE: AS SHOWN
DATE: JULY 2009	PLATE 3I

C:\Documents and Settings\pjensen\Local Settings\Temporary Internet Files\OLK2AE\POND DRAWINGS.dwg, Depression Area, 8/11/2009 3:40:31 PM

PLATE 10

RECLAMATION HYDROLOGY



UTAH REGISTERED PROFESSIONAL ENGINEER #154168 DAN W. GUY 7/31/09

ANDALEX RESOURCES, INC.

WILDCAT LOADOUT
RECLAMATION HYDROLOGY MAP

REVISION NUMBER: 1	SCALE: 1" = 300'
DATE: JULY 2009	PLATE 10

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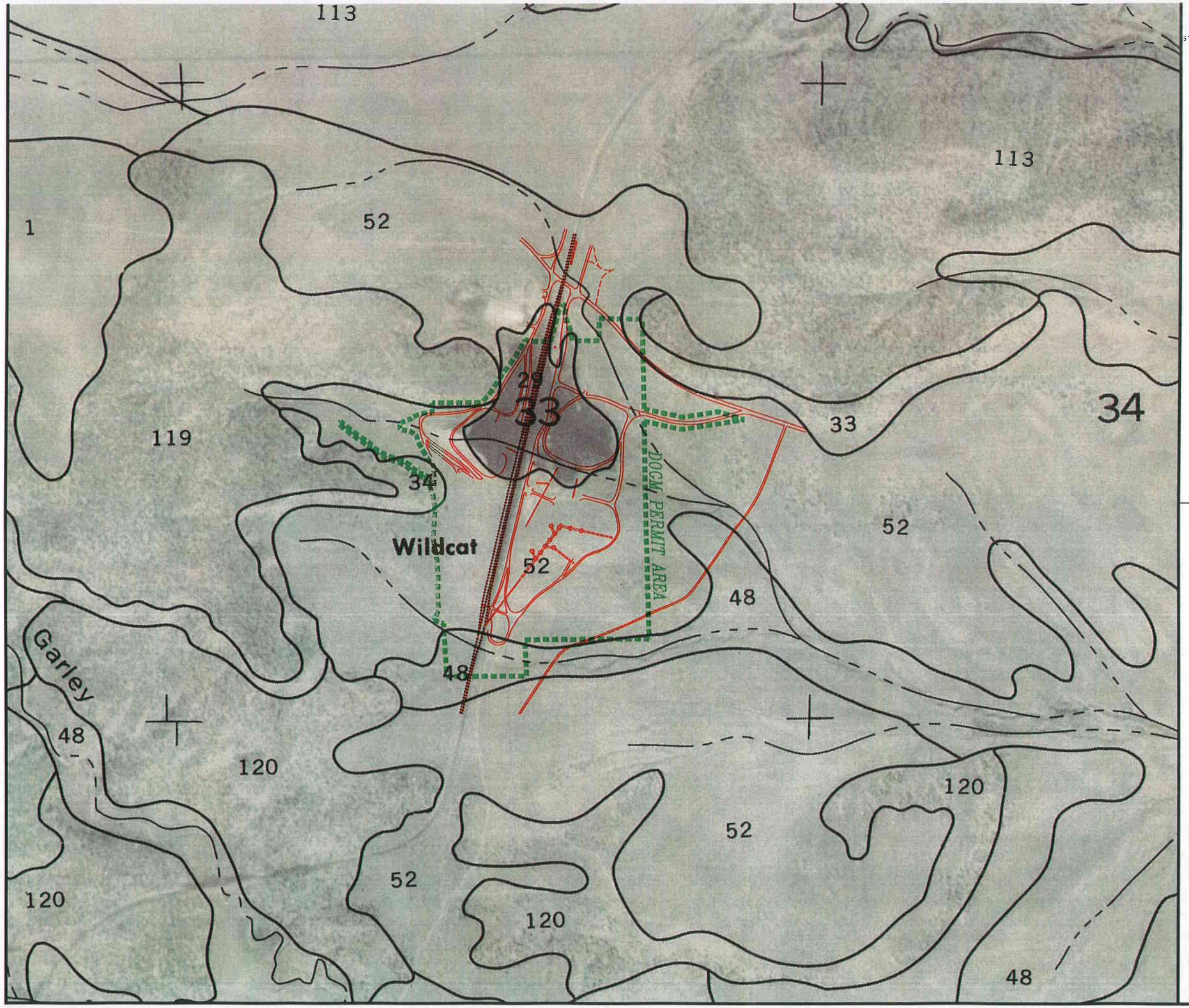
NOTE:
RECLAMATION CONTOURS AND CUT/FILL VOLUMES ARE COMPUTER-GENERATED AND ARE FOR PURPOSES OF ILLUSTRATION ONLY. ACTUAL VALUES WILL BE DETERMINED AT THE TIME OF FINAL RECLAMATION.

C:\Documents and Settings\pjensen\Local Settings\Temporary Internet Files\OLK2AE\Plate 10 (2).dwg, Reclamation Plan 11x17, 8/11/2009 3:27:03 PM

PLATE 11

SOILS MAP



SOIL LEGEND

SYMBOL	NAME	SYMBOL	NAME
1	Atrac very fine sandy loam, 1 to 6 percent slopes	62	Midfork family-Comodore complex
		63	Midfork family-Podo association
2	Badland	64	Minchey loam, 1 to 3 percent slopes
3	Badland-Rubbleland-Rock outcrop complex	65	Mivida very fine sandy loam, 1 to 6 percent slopes
4	Beje very gravelly fine sandy loam, 1 to 8 percent slopes	66	Mivida gravelly fine sandy loam, 3 to 8 percent slopes
5	Beje complex	67	Mivida very stony fine sandy loam, 1 to 3 percent slopes
6	Beje-Comodore complex	68	Moffat fine sandy loam, 3 to 6 percent slopes
7	Beje-Trag complex	69	Moffat-Persayo complex
8	Billings silty clay loam, 1 to 3 percent slopes		
9	Billings-Gullied land complex	70	Neiman-Travessilla-Rock outcrop complex
10	Cabba family, 20 to 40 percent slopes	71	Pathead extremely bouldery fine sandy loam, 40 to 70 percent slopes
11	Cabba family, 40 to70 percent slopes		
12	Cabba family-Badland-Rock outcrop complex	72	Pathead-Curecanti family association
13	Cabba family-Guben-Rock outcrop complex	73	Penoyer Variant loam, 1 to 3 percent slopes
14	Casmos-Rock outcrop complex, 2 to 25 percent slopes	74	Penoyer Variant loam, 3 to 6 percent slopes
15	Casmos-Rock outcrop complex, 40 to 70 percent slopes	75	Perma family, 15 to 40 percent slopes
16	Chipeta silty clay loam, 8 to 15 percent slopes	76	Perma family-Datino complex
17	Chipeta-Badland complex	77	Persayo loam, 3 to 8 percent slopes
18	Chipeta-Persayo complex	78	Persayo very cobbly clay loam, 3 to 15 percent slopes
19	Chupadera fine sandy loam, 1 to 8 percent slopes	79	Persayo-Badland complex
20	Comodore-Datino Variant complex	80	Persayo-Chipeta complex
21	Croydon loam, 8 to 30 percent slopes	81	Persayo-Greybull complex
22	Croydon loam, 30 to 50 percent slopes	82	Podo gravelly sandy loam, 1 to 8 percent slopes
23	Curecanti family-Pathead complex	83	Podo-Cabba family complex
		84	Podo-Rock outcrop complex.
24	Datino Variant very stony loam, 50 to 80 percent slopes		
25	Doney family, 3 to 15 percent slopes	85	Rabbitex silt loam, 15 to 50 percent slopes
26	Doney family, 50 to 70 percent slopes	86	Rabbitex-Doney family-Midfork family complex
27	Doney family-Podo complex	87	Rabbitex-Pathead complex
28	Doney-Toze families complex	88	Rabbitex family-Datino Variant complex
29	Dumps, mine	89	Ratael silty clay loam
30	Falcon-Rock outcrop complex	90	Ravola loam, 1 to 3 percent slopes
31	Ferron silt loam	91	Ravola loam, 1 to 6 percent slopes, eroded
32	Frandsen-Gullied land complex	92	Ravola-Gullied land complex
		93	Ravola-Slickspots complex
33	Gerst-Badland-Rubbleland complex, 15 to 50 percent slopes	94	Riverwash
34	Gerst-Badland-Rubbleland complex, 50 to 70 percent slopes	95	Rock outcrop
35	Gerst-Badland-Stormitt complex	96	Rock outcrop-Rubbleland-Travessilla complex
36	Gerst-Strych-Badland complex, 3 to 50 percent slopes	97	Rottulee family-Trag complex
37	Gerst-Strych-Badland complex, 50 to 70 percent slopes		
38	Gerst-Travessilla complex	98	Sagers silty clay loam
39	Glenberg family, 1 to 3 percent slopes	99	Saltair silty clay loam
40	Glenberg family, 3 to 6 percent slopes	100	Senchert loam, 3 to 15 percent slopes
41	Green River-Juva Variant complex	101	Senchert loam, 30 to 50 percent slopes
42	Greybull loam, 3 to 8 percent slopes	102	Senchert-Senchert family complex
43	Grobutta-Cabba families association	103	Senchert-Toze family complex
44	Guben-Doney family-Datino Variant complex, 15 to 40 percent slopes	104	Senchert family, 3 to 15 percent slopes
		105	Senchert family-Senchert complex
45	Guben-Doney family-Datino Variant complex, 40 to 70 percent slopes	106	Sheepcan-Podo-Rock outcrop complex
		107	Superl-Winetti complex
46	Guben-Pathead extremely stony loams	108	Silas loam
47	Guben-Rock outcrop complex	109	Silas-Bryson loams
		110	Stormitt gravelly sandy clay loam, 3 to 10 percent slopes
48	Haverdad loam, 1 to 8 percent slopes	111	Stormitt-Minchey complex
49	Haverdad loam, alkali, 0 to 3 percent slopes	112	Strych very bouldery fine sandy loam, 3 to 20 percent slopes
50	Haverdad loam, moist, 1 to 3 percent slopes	113	Strych very stony loam, 3 to 15 percent slopes
51	Hernandez family, 1 to 3 percent slopes	114	Strych very stony loam, dry, 3 to 30 percent slopes
52	Hernandez family, 3 to 8 percent slopes		
53	Hernandez family, moist, 1 to 6 percent slopes	115	Trag stony loam, 30 to 60 percent slopes
54	Hernandez family-Atrac complex	116	Trag-Beje-Rottulee family complex
55	Hunting loam, 1 to 3 percent slopes	117	Trag-Beje-Senchert complex
56	Hunting loam, moderately saline, 1 to 3 percent slopes	118	Trag-Croydon complex
57	Hunting silty clay loam, 1 to 3 percent slopes	119	Travessilla sandy loam, 1 to 8 percent slopes
		120	Travessilla-Rock outcrop complex
58	Juva Variant fine sandy loam	121	Travessilla-Rock outcrop-Gerst complex
		122	Travessilla-Travessilla family-Rock outcrop complex
59	Killpack clay loam, 1 to 3 percent slopes	123	Travessilla family, 1 to 8 percent slopes
60	Killpack clay loam, 3 to 6 percent slopes		
		124	Uinta family-Podo association
		125	Uinta-Toze families complex
61	Libbings silty clay loam	126	Winetti Variant cobbly fine sandy loam, 0 to 8 percent slopes

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SOURCE:
Soil Survey of Carbon Area, Utah
USDA, Soil Conservation Service

I CERTIFY THIS MAP TO BE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

UTAH REGISTERED PROFESSIONAL ENGINEER #6449561 David W. Hibbs 7/24/09

ANDALEX RESOURCES, INC.

WILDCAT LOADOUT
SOIL MAP

REVISION NUMBER: 2	SCALE: 1" = 800'
DATE: JULY 2009	PLATE 11

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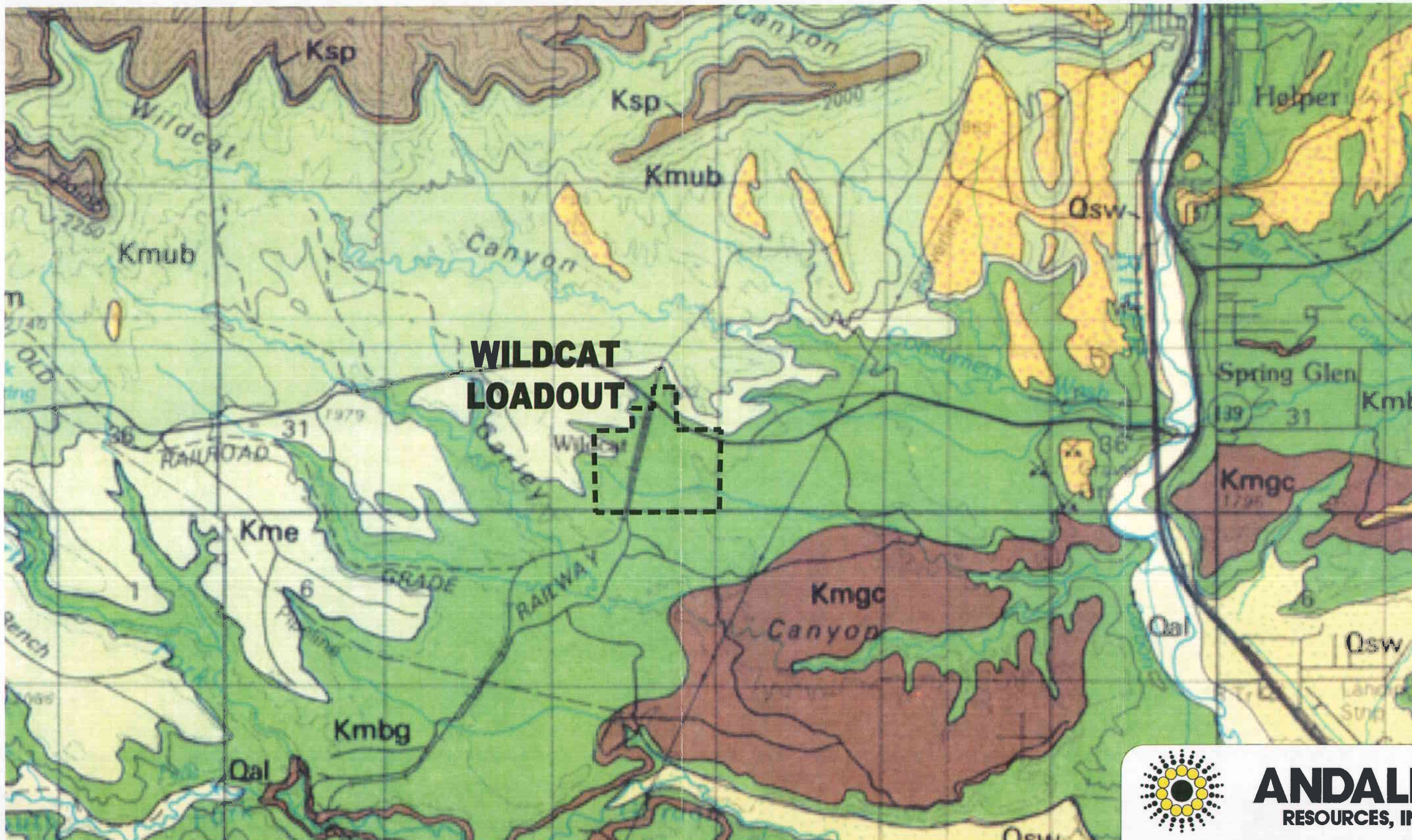
PLATE 12

GEOLOGY MAP



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ANDALEX RESOURCES, INC.

WILDCAT LOADOUT
GEOLOGY MAP

REVISION NUMBER:	SCALE:
1	AS SHOWN
DATE: MAY 2007	PLATE 12

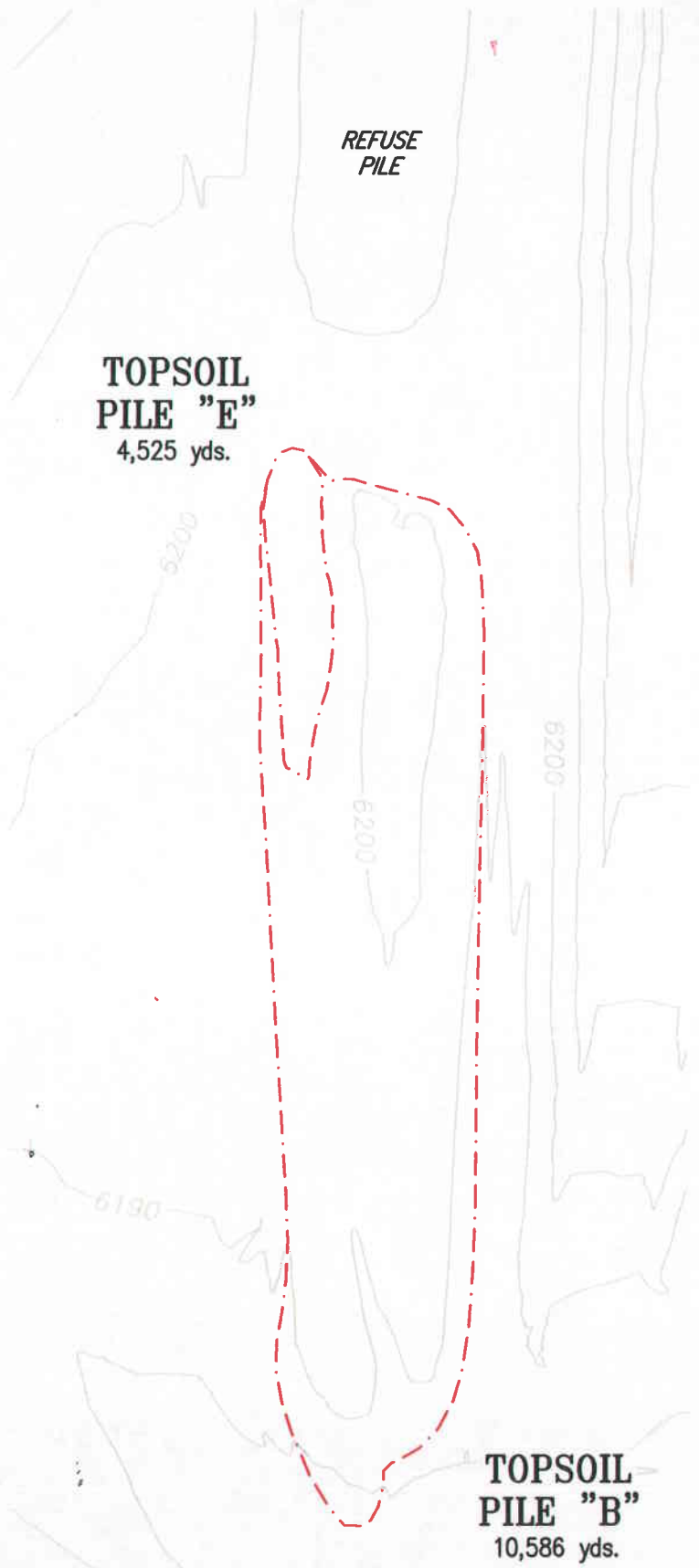
LEGEND:

Kmub = Upper Part of Blue Gate Member
Kme = Emery Sandstone Member
Kmbg = Cretaceous Blue Gate Shale Member of Mancos Formation

---- Wildcat (DOGM Permit Area)

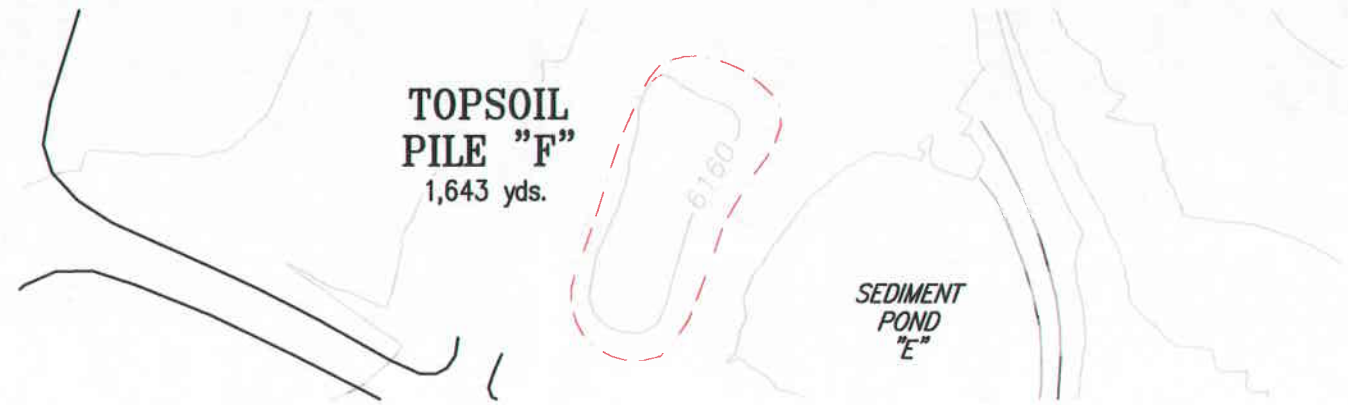
PLATE 13

TOPSOIL PILES



EXISTING TOPSOIL PILES "B" AND "E"

AREA = 1.71 ac.



EXISTING TOPSOIL PILE "F"

AREA = 0.30 ac.

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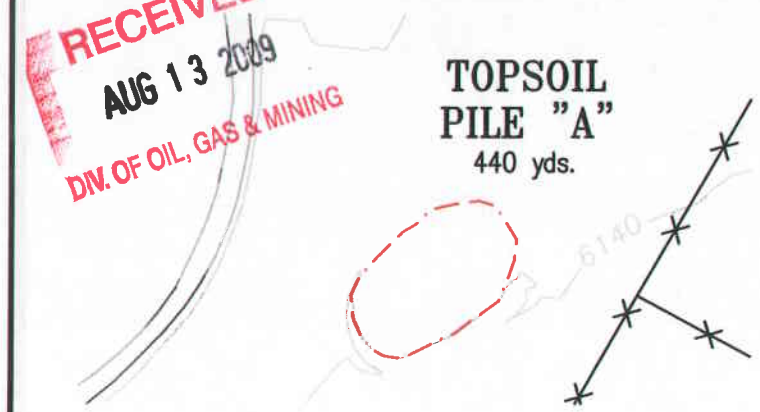
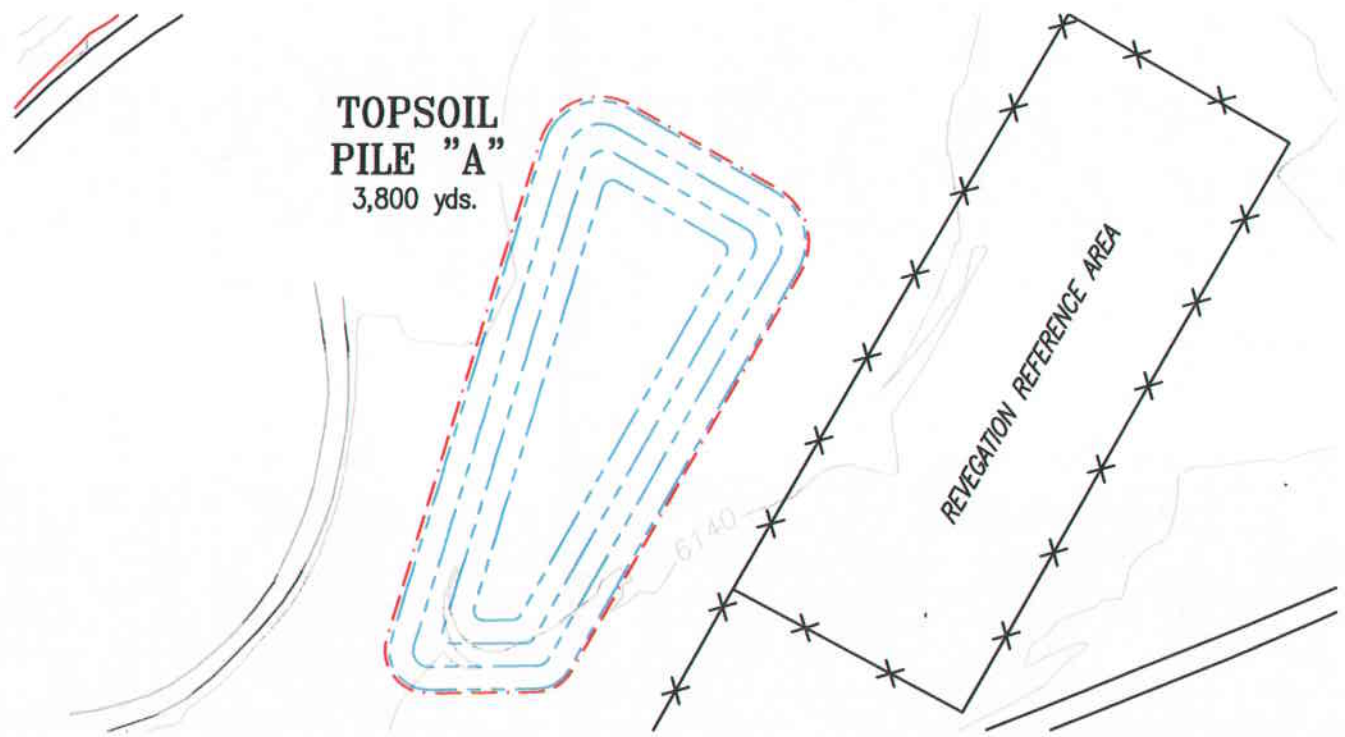


EXISTING TOPSOIL PILE "A"

AREA = 0.14 ac.



EXPANDED TOPSOIL PILE "A"

AREA = 0.83 ac. HEIGHT = 6'

NOTES:

1) SEE PLATE 1A FOR PILE LOCATIONS.
2) ALL MEASUREMENTS AND VOLUMES ARE APPROXIMATE.
3) EXPANDED PILE "A" WILL BE SURVEYED AND MAPPED AFTER CONSTRUCTION.
4) EXPANDED PILE "A" WILL BE REVEGETATED AFTER CONSTRUCTION.

N

LEGEND:

- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOUR
- TOPSOIL PILE PERIMETER
- BERM

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UTAH REGISTERED PROFESSIONAL ENGINEER #6449561 David W. Hibbs 7/30/09

ANDALEX RESOURCES, INC.

WILDCAT LOADOUT
TOPSOIL PILE DETAILS
EXISTING AND PROPOSED

REVISION NUMBER: 1	SCALE: 1" = 100'
DATE: JULY 2009	PLATE 13

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PLATE 15

WATERSHED MAP

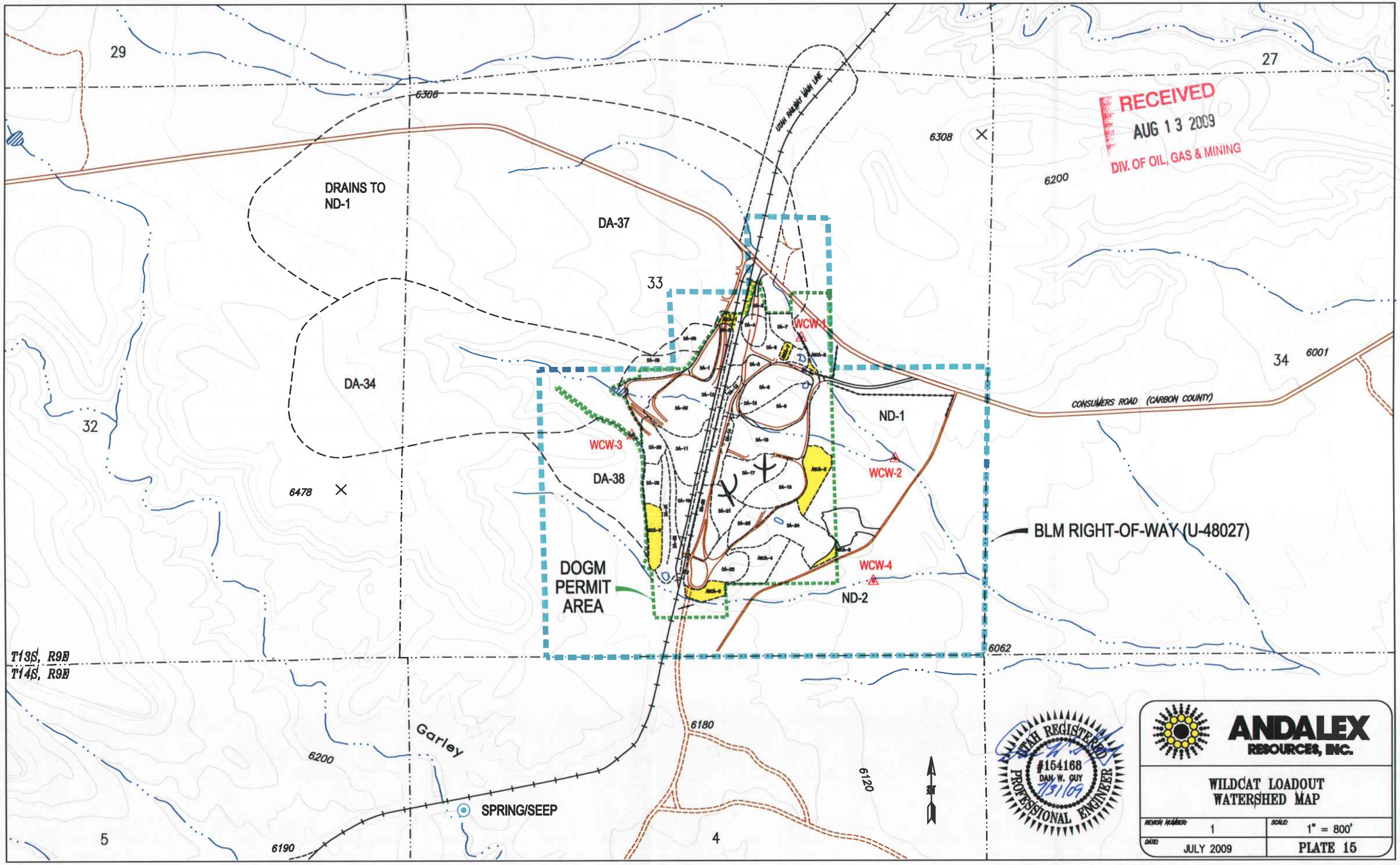

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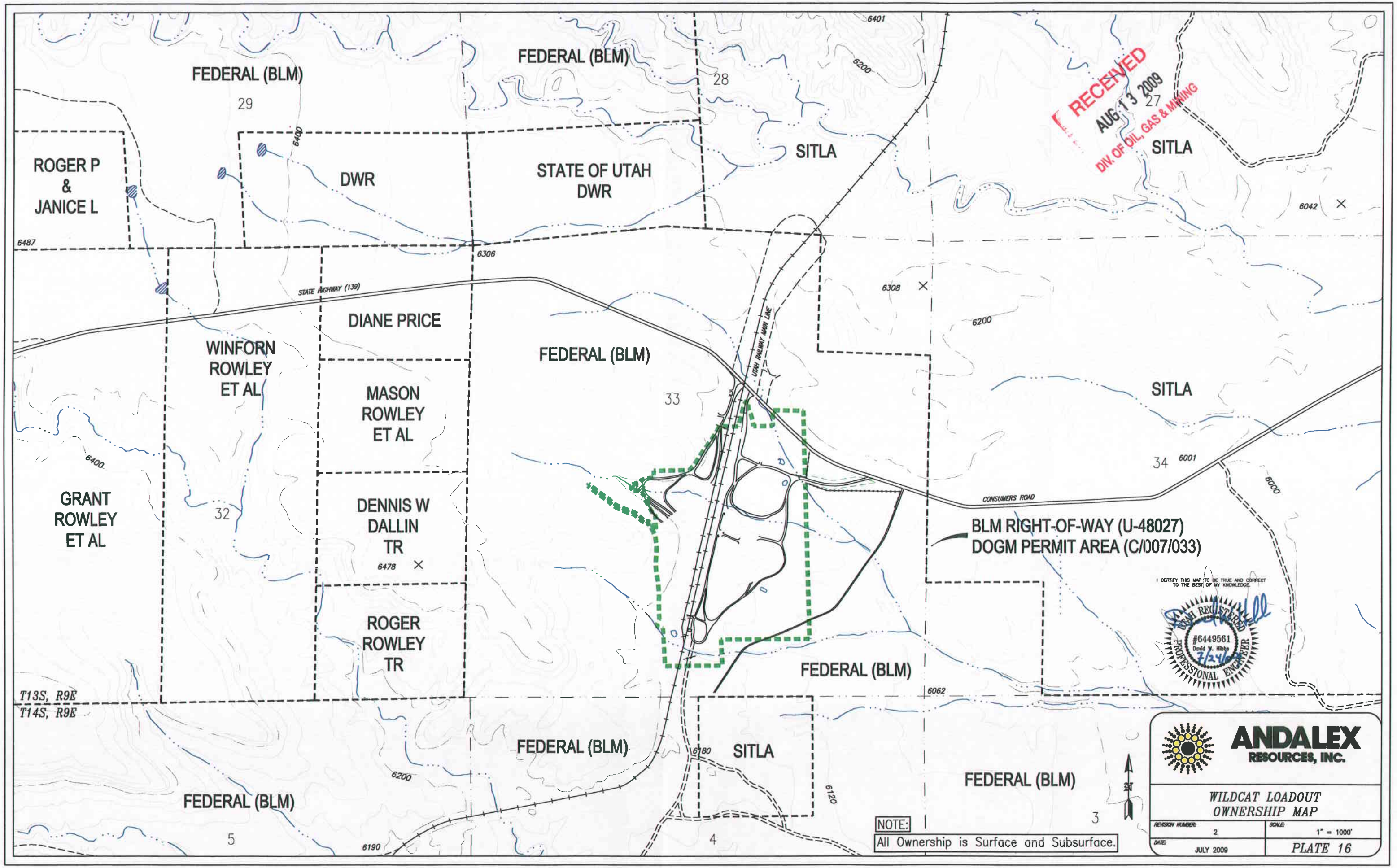
PLATE 16

SURFACE OWNERSHIP MAP



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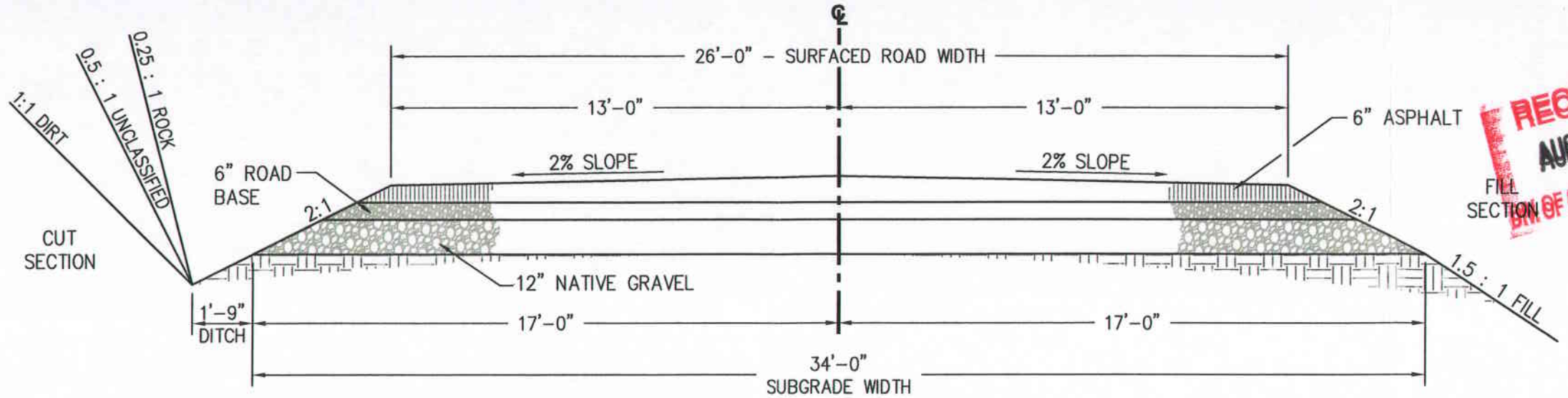
G:\Current Drawings\Buildings & Construction\Wildcat Loadout\Coal Storage Area Expansion\Files from Blackhawk\7-24-09\Plate 16 Ownership.dwg, Model, 7/24/2009 1:31:29 PM

PLATE 17

TYPICAL ROAD CROSS-SECTIONS



TYPICAL PAVED AREA

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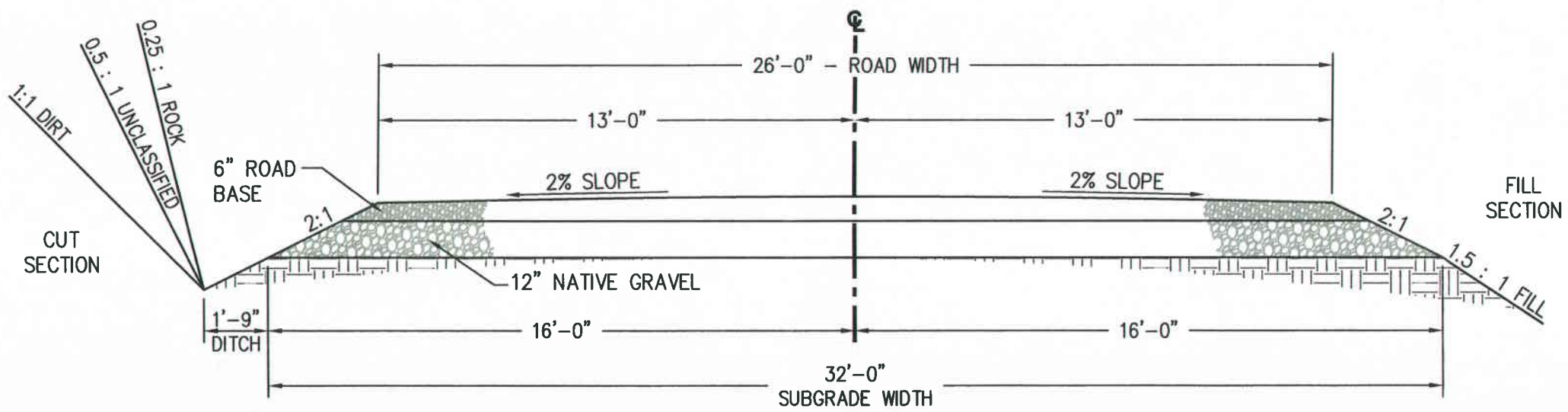
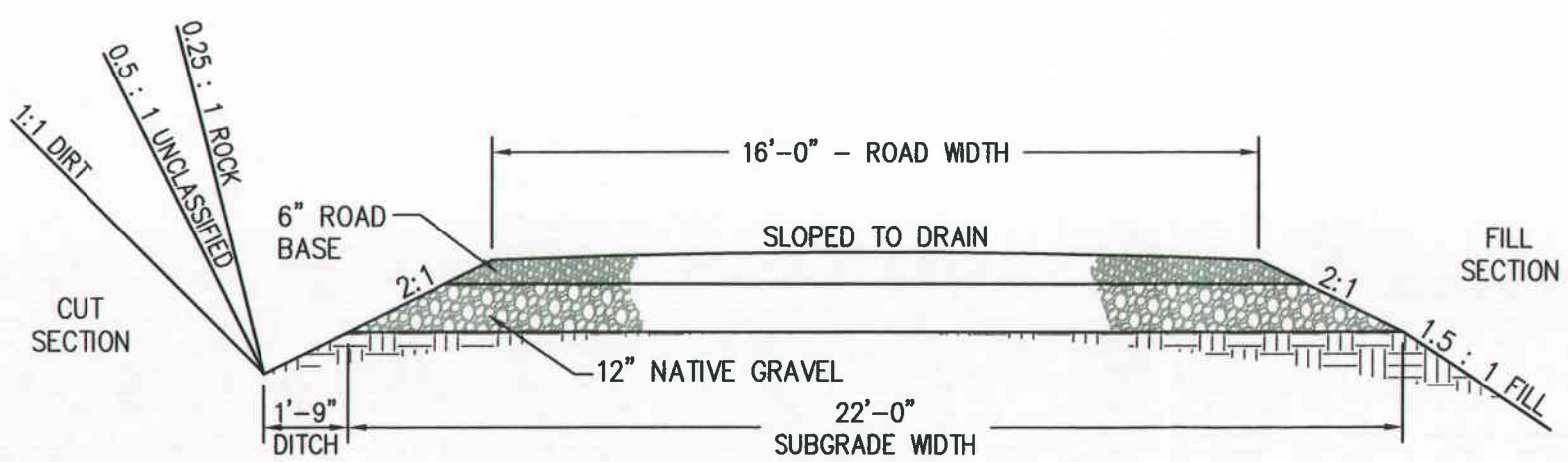


TYPICAL UNPAVED AREA



TYPICAL SINGLE-LANE GRAVEL ROAD

UTAH REGISTERED
#154168
DAN W. GUY
5/3/07
PROFESSIONAL ENGINEER

ANDALEX RESOURCES, INC.

WILDCAT LOADOUT
TYPICAL ROAD
CROSS SECTIONS

REVION NUMBER: 1	SCALE: AS SHOWN
DATE: MAY 2007	PLATE 17

PLATE 29

VEGETATION MAP

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