



Compartment Review Presentation

Pigeon River Country Forest Management Unit

Compartment 53046

Entry Year 2018

Acreage: 1,749

County Otsego

Management Area: Pigeon River Country

Revision Date: 2016-06-26

Stand Examiner: Greg Rekowski

Legal Description:

T31N R01W Sections 4, 9, and 16

Identified Planning Goals:

Maintain the current species mix and apply appropriate management techniques to mature stands of timber that are in need of treatment.

Soil and topography:

Terrain west of Lost Cabin and Tin Shanty Roads is primarily lowland coniferous swamp. The remainder of the compartment is rolling uplands with a mix of pine, aspen, and hardwood types.

Tawas-Lupton muck is the primary soil in the lowland types. Upland soils are dominated by Blue Lake loamy sands, of varying slopes. Rubicon and Mancelona loamy sands are also present in the upland types.

Ownership Patterns, Development, and Land Use in and Around the Compartment:

This compartment is nearly a solid block of state land with the exception of a 40 acre and 80 acre private parcel at the north end. Oil and gas development is extensive throughout the upland portions in the north half of the compartment.

Unique Natural Features:

A large portion of the Black River swamp is in this compartment.

Archeological, Historical, and Cultural Features:

None identified.

Special Management Designations or Considerations:

A portion of the Tin Shanty Dedicated Habitat Area (DHA) extends into this compartment, encompassing stands 11, 16, and 17.

Watershed and Fisheries Considerations:

Green's Creek, a tributary to the Black River, has its headwaters in this compartment.

Wildlife Habitat Considerations:

A Wildlife Division representative will be available to participate in the formal compartment review.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of glacial outwash sand and gravel and postglacial alluvium and coarse-textured glacial till. The glacial drift thickness varies between 600 and 800 feet. Beneath the glacial drift are the Devonian Berea Sandstone, Bedford and Antrim Shales. The Antrim is quarried for cement products elsewhere in the State. An inactive gravel pit is located three miles to the northwest and potential is good on the upland areas. However, page 30 of the Concept of Management for the PRC says that extraction of surface minerals will rarely be allowed. This area is currently leased for Niagaran oil and gas development and several wells were drilled and are still producing oil and gas. Additional Niagaran reefs may be located in the compartment and the Antrim Shale is present and also has potential. The closest Antrim production is just to the southeast. However, the entire compartment is in the Consent Order Area and, as provided on page 33 of the Concept of Management, no new leases will be issued in this Area.

Vehicle Access:

There is good access to this compartment. Roads designated as closed to wheeled motorized traffic are still closed.

Survey Needs:

None required at this time.

Recreational Facilities and Opportunities:

None within this compartment.

Fire Protection:

Access is good in case of any fire suppression efforts, though the area is at low risk of any wildfire potential.

Additional Compartment Information:

The following reports from the Inventory are attached:

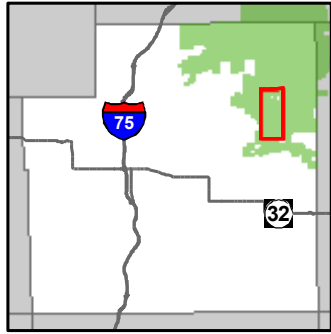
- Total Acres by Cover Type and Age Class**
- Cover Type by Harvest Method**
- Proposed Treatments – No Limiting Factors**
- Proposed Treatments – With Limiting Factors**
- Stand Details (Forested and Nonforested)**
- Dedicated and Proposed Special Conservation Areas**
- Site Condition Details**

The following information is displayed, where pertinent, on the attached compartment maps:

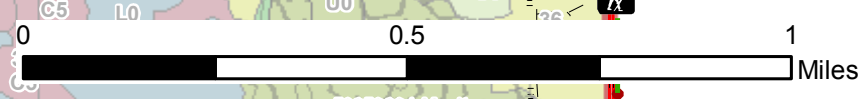
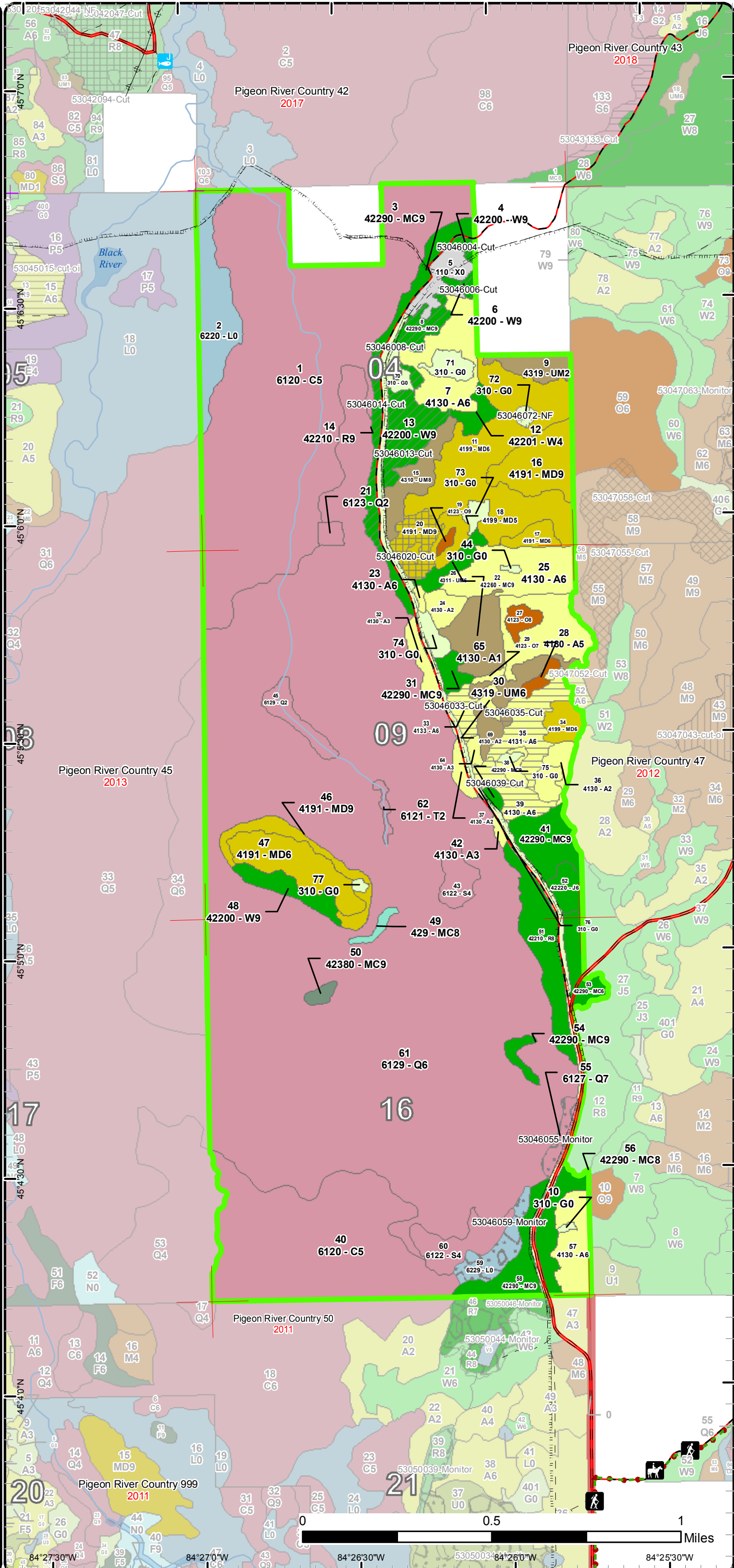
- Base feature information, stand boundaries, cover types, and numbers**
- Proposed treatments**
- Site condition boundaries**
- Details on the road access system**

Cover Type & Treatments Map

Compartment: 46
 T31N, R01W, Sec: 04, 09, 16
 County: Otsego
 Unit: Pigeon River Country
 Mgmt Area: Pigeon River Country
 YOE: 2018
 Acres: 1749.5 GIS Calculated
 Examiner: Greg Rekowski
 Map Revised: 2/8/2017
 Map Phase: Post-Review



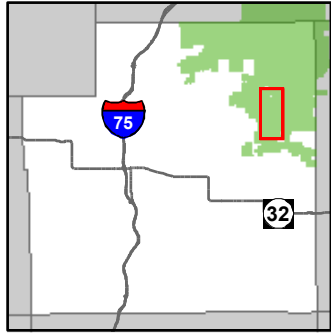
- Miris Corners
- + Remonumented Section Corners
- Fishing Access Site
- Hiking Trails
- Horse Trails
- Designated Hiking Trails
- Designated Equestrian Trails
- County Gravel Roads
- County Poor Dirt Roads
- Poor Dirt Roads
- Rivers
- Pipeline
- Powerline
- Compartment Boundary
- Clearcut (w/Reserves)
- Other Treatment - See Comments
- Regeneration Survey
- Thinning (Crown, Low, Systematic)
- Seed Tree (w/Reserves)
- 412 - Oak Types
- 413 - Aspen Types
- 419 - Mixed Upland Deciduous
- 422 - Natural Pines
- 423 - Other Upland Conifers
- 429 - Mixed Upland Conifers
- 430 - Upland Mixed Forest
- 612 - Lowland Coniferous Forest
- 110 - Low Intensity Urban
- 310 - Herbaceous Openland
- 622 - Lowland Shrub
- Lakes



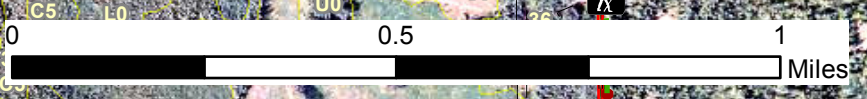
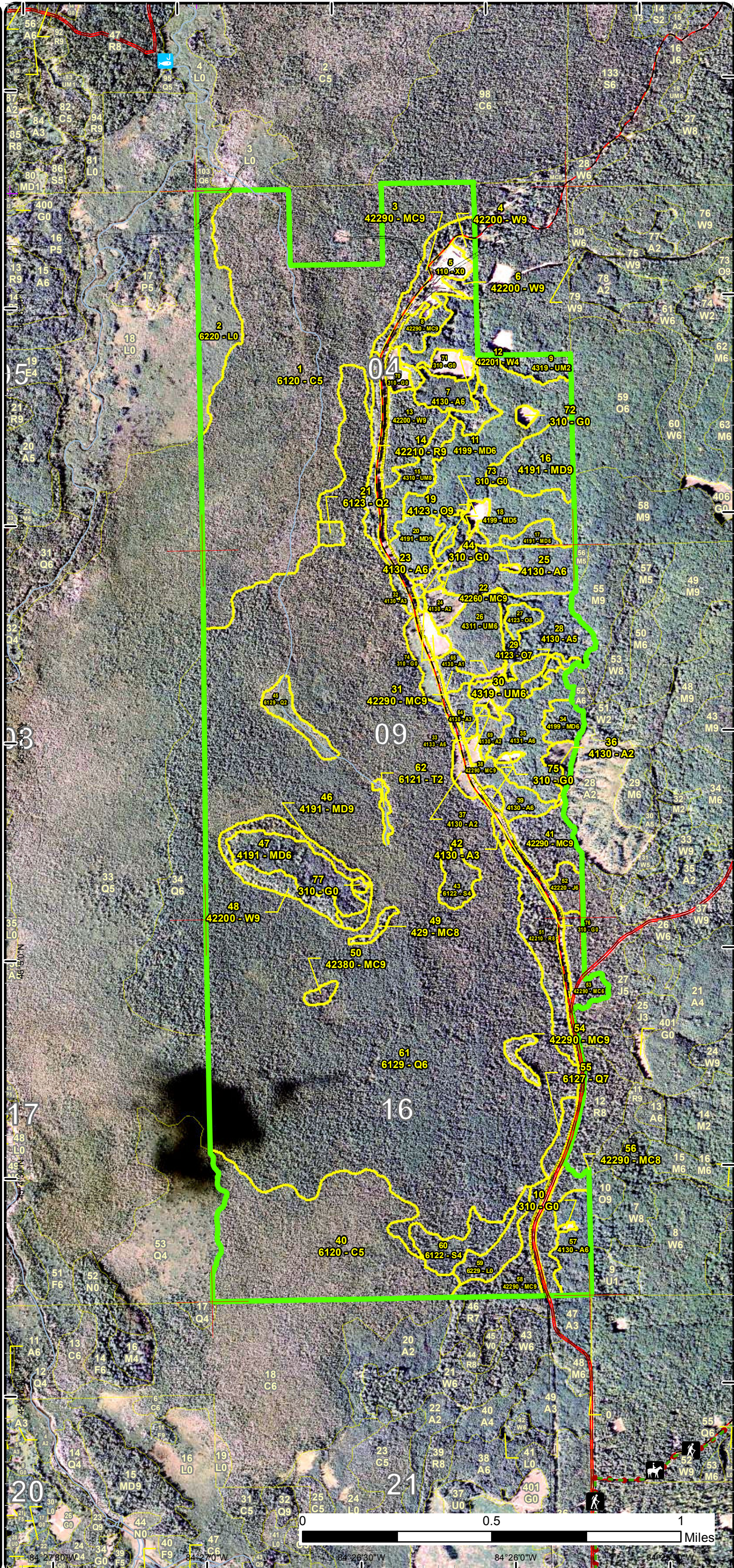
84°27'30"W 84°26'30"W 84°25'30"W

Stand Boundary Map

Compartment: 46
 T31N, R01W, Sec: 04, 09, 16
 County: Otsego
 Unit: Pigeon River Country
 Mgmt Area: Pigeon River Country
 YOE: 2018
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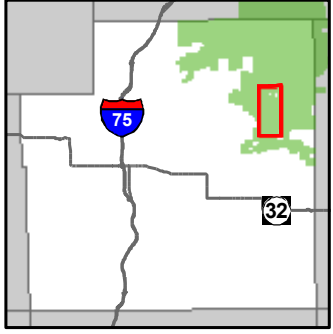
- Miris Corners
- + Remonumented Section Corners
- Fishing Access Site
- Hiking Trails
- Horse Trails
- Designated Hiking Trails
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- County Gravel Roads
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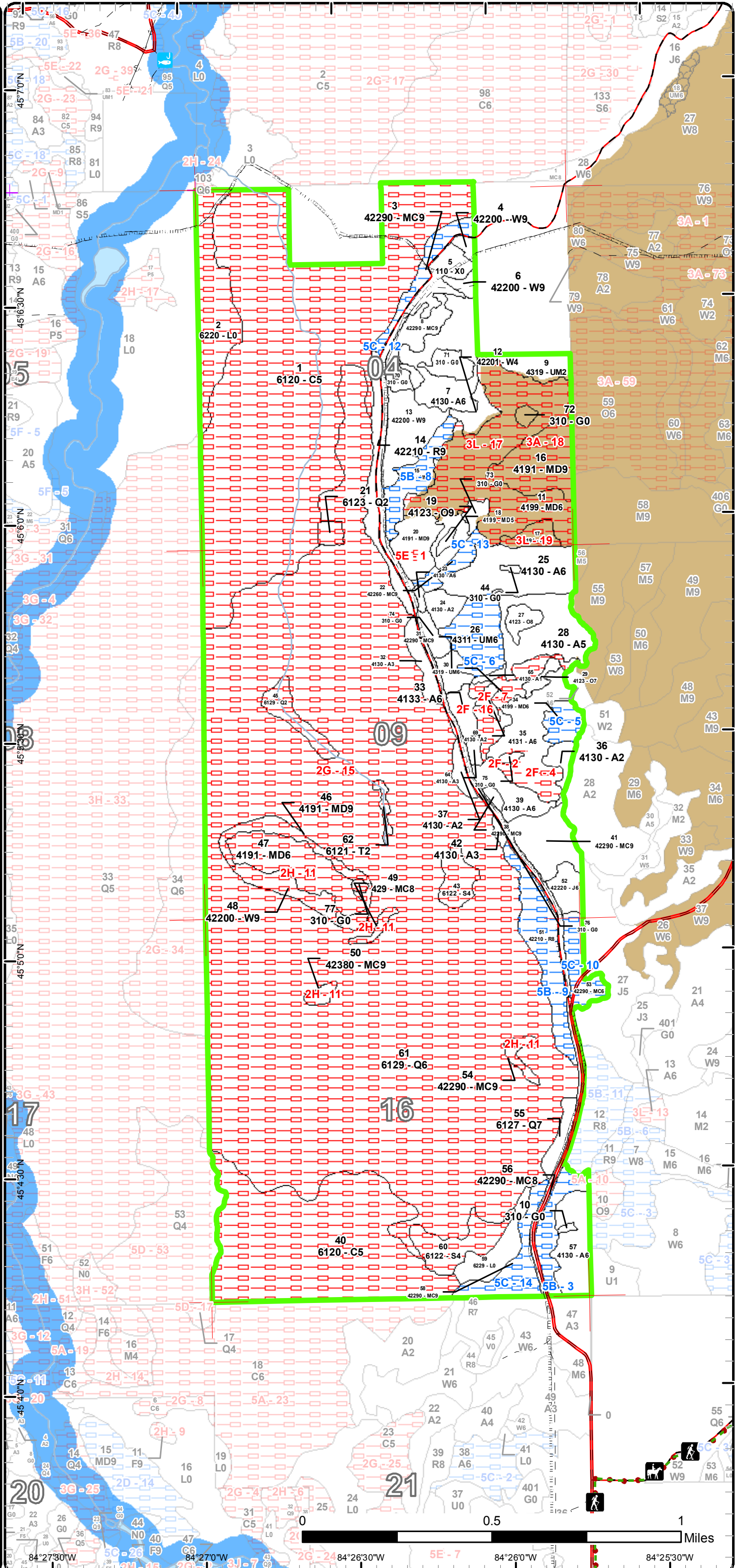
84°27'00"W 84°26'30"W 84°26'00"W 84°25'30"W

Special Conservation Areas & Site Conditions Map

Compartment: 46
 T31N, R01W, Sec: 04, 09, 16
 County: Otsego
 Unit: Pigeon River Country
 Mgmt Area: Pigeon River Country
 YOE: 2018
 Acres: 1749.5 GIS Calculated
 Examiner: Greg Rekowski
 Map Revised: 2/8/2017
 Map Phase: Post-Review



- Miris Corners
- + Remonumented Section Corners
- Fishing Access Site
- Hiking Trails
- Horse Trails
- Designated Hiking Trails
- Designated Equestrian Trails
- County Gravel Roads
- County Poor Dirt Roads
- Poor Dirt Roads
- Rivers
- Pipeline
- Powerline
- Compartment Boundary
- Available w/ Constraints
- Unavailable
- 5B: Maintain for regeneration purposes
- 5C: Delay treatment for age/size class diversity or exceptional site quality
- 2F: Too steep
- 2G: Too wet (sensitive soils, does not include access issues)
- 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)
- 3A: Potential old growth / biodiversity
- 3L: Other wildlife concerns
- 5E: Long-Term Retention
- Stand Boundaries
- Forest Habitat Core Interior
- Cold Water Streams
- Cold Water Lakes
- High Priority Trout Stream Buffer



Report 1 – Total Acres by Cover Type and Age Class



Age Class

| | Non-Forest | 0-9 | 10-19 | 20-29 | 30-39 | 40-49 | 50-59 | 60-69 | 70-79 | 80-89 | 90-99 | 100-109 | 110-119 | 120-129 | 130-139 | 140-149 | 150+ | Uneven-Aged | Total |
|------------------------|------------|-----------|----------|-----------|-----------|-----------|----------|-----------|-----------|------------|-----------|-----------|-------------|----------|----------|----------|----------|-------------|-------------|
| Aspen | 0 | 23 | 0 | 21 | 61 | 39 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 144 |
| Cedar | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 355 | 0 | 0 | 0 | 0 | 0 | 355 |
| Herbaceous Openland | 46 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 46 |
| Jack Pine | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| Lowland Conifers | 0 | 0 | 0 | 0 | 3 | 8 | 0 | 0 | 0 | 0 | 0 | 5 | 771 | 0 | 0 | 0 | 0 | 0 | 787 |
| Lowland Shrub | 37 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 37 |
| Lowland Spruce/Fir | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 21 |
| Mixed Upland Deciduous | 0 | 0 | 0 | 0 | 5 | 22 | 0 | 0 | 0 | 103 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 141 |
| Natural Mixed Pines | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 16 | 27 | 23 | 3 | 0 | 0 | 0 | 0 | 0 | 79 |
| Oak | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| Red Pine | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 21 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 32 |
| Tamarack | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Upland Conifers | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| Upland Mixed Forest | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 13 | 0 | 16 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 49 |
| Urban | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| White Pine | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 17 | 0 | 4 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 34 |
| Total | 92 | 23 | 0 | 34 | 71 | 85 | 0 | 13 | 17 | 182 | 56 | 39 | 1139 | 0 | 0 | 0 | 0 | 0 | 1751 |



Report 2 – Treatment Summary

Acres of Harvest

Commercial Harvest - 76
Harvests with Site Condition - 0
Next Step Harvest - 0
Habitat Cut - 0

Cover Type by Harvest Method

| | Clearcut | Selection | Patch Clearcut | Seed Tree | Shelterwood | Thinning | Overstory Removal | Salvage | Other | Total Acres |
|------------------------|-----------|-----------|----------------|-----------|-------------|-----------|-------------------|----------|----------|-------------|
| Aspen | 31 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 31 |
| Mixed Upland Deciduous | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 10 |
| Natural Mixed Pines | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 7 |
| Red Pine | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 8 |
| White Pine | 0 | 0 | 0 | 0 | 0 | 20 | 0 | 0 | 0 | 20 |
| Total | 31 | 0 | 0 | 10 | 0 | 35 | 0 | 0 | 0 | 76 |

Proposed and Next Step Treatments by Method

| | Harvest | Site Prep | Planting | Seeding | Burning | Pesticide | Monitoring | Other | Non-Forest Mgt. | Total Acres |
|--------------|-----------|-----------|----------|----------|----------|-----------|------------|----------|-----------------|-------------|
| Current | 76 | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 2 | 93 |
| Next Step | 0 | 0 | 0 | 0 | 0 | 0 | 41 | 0 | 0 | 41 |
| Total | 76 | 0 | 0 | 0 | 0 | 0 | 56 | 0 | 2 | 134 |



| S t a n d | Treatment Name | Acres | Stand CoverType | Size Density | Stand Age | BA Range | Treatment Type | Treatment Method | Cover Type Objective | Age Structure | Approval Status |
|-----------------------|-------------------|-------|-------------------------------|-------------------|--------------|-------------|-------------------|---------------------|------------------------------|------------------|-------------------------|
| 4 | 53046004-Cut | 1.8 | 42200 - Natural White Pine | Sawtimber Well | 90 | 141- 170 | Harvest | Crown Thinning | 4220 - Natural White Pine | Even-Aged | Draft Field Boundary |

Habitat Cut: No

Site Condition:

Prescription Crown thin down to 100-110 square feet. Focus on removing the smallest, suppressed stems. Avoid marking oak and aspen as much as possible.
Specs:

Next Step
Treatments:

Acceptable
Regen:

Other
Comment:

Proposed Start Date: 10/01/2017

| | | | | | | | | | | | |
|---|--------------|-----|-------------------------------|-------------------|----|-------------|---------|----------------|------------------------------|-----------|-------------------------|
| 6 | 53046006-Cut | 1.6 | 42200 - Natural White Pine | Sawtimber Well | 90 | 111- 140 | Harvest | Crown Thinning | 4220 - Natural White Pine | Even-Aged | Draft Field Boundary |
|---|--------------|-----|-------------------------------|-------------------|----|-------------|---------|----------------|------------------------------|-----------|-------------------------|

Habitat Cut: No

Site Condition:

Prescription Crown thin down to 100-110 square feet. Focus on removing the smallest, suppressed stems. Avoid marking oak and aspen as much as possible.
Specs:

Next Step
Treatments:

Acceptable
Regen:

Other
Comment:

Proposed Start Date: 10/01/2017

| | | | | | | | | | | | |
|---|--------------|-----|-------------------------------|-------------------|----|-------------|---------|----------------|--------------------------------|-----------|-------------------------|
| 8 | 53046008-Cut | 6.8 | 42290 - Natural Mixed Pine | Sawtimber Well | 90 | 171- 200 | Harvest | Crown Thinning | 429 - Mixed Upland Conifers | Even-Aged | Draft Field Boundary |
|---|--------------|-----|-------------------------------|-------------------|----|-------------|---------|----------------|--------------------------------|-----------|-------------------------|

Habitat Cut: No

Site Condition:

Prescription Crown thin down to 110-120 square feet. Focus on removing the smallest, suppressed stems from the poletimber and small sawlog size classes.
Specs: Avoid marking oak and aspen as much as possible.

Next Step
Treatments:

Acceptable
Regen:

Other The two thin strips at the north end of the stand may need to be excluded due to short steep slopes and proximity to the oil and gas structures.
Comment:

Proposed Start Date: 10/01/2017

| | | | | | | | | | | | |
|----|--------------|------|-------------------------------|-------------------|----|-------------|---------|----------------|------------------------------|-----------|-------------------------|
| 13 | 53046013-Cut | 16.7 | 42200 - Natural White Pine | Sawtimber Well | 79 | 141- 170 | Harvest | Crown Thinning | 4220 - Natural White Pine | Even-Aged | Draft Field Boundary |
|----|--------------|------|-------------------------------|-------------------|----|-------------|---------|----------------|------------------------------|-----------|-------------------------|

Habitat Cut: No

Site Condition:

Prescription Thin down to 100-120 square feet. Focus on removing suppressed trees from the small poletimber and small sawlog size classes. Do not cut any oak.
Specs:

Next Step
Treatments:

Acceptable
Regen:

Other Exclude the northern finger of the stand if it is too thin to operate in.
Comment:

Proposed Start Date: 10/01/2017



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| | Treatment Name | Acres | Stand CoverType | Size Density | Stand Age | BA Range | Treatment Type | Treatment Method | Cover Type Objective | Age Structure | Approval Status |
|----|----------------|-------|--------------------------|----------------|-----------|----------|----------------|------------------|---|---------------|----------------------|
| 14 | 53046014-Cut | 8.1 | 42210 - Natural Red Pine | Sawtimber Well | 109 | 111-140 | Harvest | Crown Thinning | 42141 - Planted Mixed Pine, Mixed Deciduous | Uneven-Aged | Draft Field Boundary |

Habitat Cut: No

Site Condition:

Prescription Thin down to 80 square feet per acre. Focus on thinning the smallest trees and retain the largest ones. No other species besides red or white pine should be cut.

Next Step
Treatments:

Acceptable
Regen:

Other
Comment:

Proposed Start Date: 10/01/2017

| | | | | | | | | | | | |
|----|--------------|------|--|----------------|----|---------|---------|--------------------------|--|-----------|----------------------|
| 20 | 53046020-Cut | 10.0 | 4191 - Mixed Upland Deciduous with Conifer | Sawtimber Well | 87 | 111-140 | Harvest | Seed Tree with Retention | 4191 - Mixed Upland Deciduous with Conifer | Even-Aged | Draft Field Boundary |
|----|--------------|------|--|----------------|----|---------|---------|--------------------------|--|-----------|----------------------|

Habitat Cut: No

Site Condition:

Prescription Mark to leave up to 20 square feet per acre of the highest quality oak and pine. Leave all birch. Mark to leave 1 aspen per acre that is sawlog-sized and has significant amounts of rot. Require whole-tree skidding or chipping of tops to encourage ground scarification, during the fall months.

Next Step Monitoring, Natural Regen (Intermediate)
Treatments:

Acceptable At least a medium-stocked stand with at least a 25% representation of oak. Any additional mix of species will be acceptable in determining
Regen: regeneration success.

Other Some steep slopes but all should be workable.

Comment: Area retention is already in MIFI and is the nice natural pine pocket in the interior of the stand.

Proposed Start Date: 10/01/2017

| | | | | | | | | | | | |
|----|--------------|-----|--------------------------|-----------------|----|--------|---------|----------|-------------|-----------|----------------------|
| 33 | 53046033-Cut | 4.8 | 4133 - Aspen, Mixed Pine | Poletimber Well | 43 | 81-110 | Harvest | Clearcut | 413 - Aspen | Even-Aged | Draft Field Boundary |
|----|--------------|-----|--------------------------|-----------------|----|--------|---------|----------|-------------|-----------|----------------------|

Habitat Cut: No

Site Condition:

Prescription Cut all trees except for any incidental oak, birch, or black spruce. Leave 1-3 of the largest pine per acre. Mark to leave some aspen near the pine to create clumps.

Next Step Monitoring, Natural Regen (Intermediate)
Treatments:

Acceptable At least a medium-stocked stand dominated by aspen.
Regen:

Other No area retention due to small size.

Comment: Consider a winter only harvest to help alleviate browsing impacts to the BTA.

Proposed Start Date: 10/01/2017



| Stand Name | Treatment Name | Acres | Stand CoverType | Size Density | Stand Age | BA Range | Treatment Type | Treatment Method | Cover Type Objective | Age Structure | Approval Status |
|------------|----------------|-------|-------------------|-----------------|-----------|----------|----------------|-------------------------|----------------------|---------------|----------------------|
| 35 | 53046035-Cut | 17.5 | 4131 - Aspen, Oak | Poletimber Well | 44 | 81-110 | Harvest | Clearcut with Retention | 413 - Aspen | Even-Aged | Draft Field Boundary |

Habitat Cut: No

Site Condition:

Prescription Clearcut all species except for any pine, birch, hemlock, or basswood. Mark to leave clumps of oak scattered throughout the stand (3 trees at least). Target the biggest and best quality trees as leave trees and mark more clumps in areas that are heavy to oak. Included in the leave trees, mark a few of the larger aspen that have significant amounts of rot (target 1 per acre).
Specs:

Next Step Monitoring, Natural Regen (Intermediate)
Treatments:

Acceptable Regen: At least a medium-stocked stand dominated by aspen with any additional mix of species being acceptable.

Other Comment: Retention areas have already been excluded in the site conditions layer and represent those slopes and ridgetops that are too steep to harvest.

Consider a winter only harvest and leaving slash to try to alleviate the severe browsing that will take place on the BTA, oak, and hardwoods.

Proposed Start Date: 10/01/2017

| | | | | | | | | | | | |
|----|--------------|-----|--------------|-----------------|----|--------|---------|----------|-------------|-----------|----------------------|
| 39 | 53046039-Cut | 9.1 | 4130 - Aspen | Poletimber Well | 43 | 81-110 | Harvest | Clearcut | 413 - Aspen | Even-Aged | Draft Field Boundary |
|----|--------------|-----|--------------|-----------------|----|--------|---------|----------|-------------|-----------|----------------------|

Habitat Cut: No

Site Condition:

Prescription Cut all species except for any birch, oak, or black spruce. Leave all pine over 16" DBH. Mark to leave some aspen near the larger pine in order to create clumps. No area retention due to the small size of the stand.
Specs:

Next Step Monitoring, Natural Regen (Intermediate)
Treatments:

Acceptable Regen: At least a medium-stocked stand dominated by aspen with any additional mix of species being acceptable.

Other Comment: Consider a winter only harvest due to the likelihood of browsing on the BTA.

Proposed Start Date: 10/01/2017

| | | | | | | | | | | | |
|----|------------------|-----|---------------------|----------------|-----|-------|------------|------------------------------|---------------------|----------|----------------------|
| 55 | 53046055-Monitor | 4.8 | 6127 - Lowland Pine | Sawtimber Poor | 109 | 51-80 | Monitoring | Natural Regen (Re-Inventory) | 6122 - Black Spruce | Two-Aged | Draft Field Boundary |
|----|------------------|-----|---------------------|----------------|-----|-------|------------|------------------------------|---------------------|----------|----------------------|

Habitat Cut: No

Site Condition:

Prescription Using regeneration survey protocols, monitor success of regeneration in the stand.
Specs:

Next Step
Treatments:

Acceptable Regen: Black spruce regeneration that meets the stocking guidelines. Pine and red maple will be expected to be additional components.

Other Comment:

Proposed Start Date: 10/01/2027

| | | | | | | | | | | | |
|----|------------------|------|----------------------------|------------|---|-------------|------------|------------------------------|---------------------|-----------|----------------------|
| 59 | 53046059-Monitor | 10.1 | 6229 - Mixed lowland shrub | Nonstocked | 0 | Unspecified | Monitoring | Natural Regen (Re-Inventory) | 6122 - Black Spruce | Even-Aged | Draft Field Boundary |
|----|------------------|------|----------------------------|------------|---|-------------|------------|------------------------------|---------------------|-----------|----------------------|

Habitat Cut: No

Site Condition:

Prescription Using regen survey protocols, monitor success of black spruce regeneration.
Specs:

Next Step
Treatments:

Acceptable Regen: Black spruce regeneration that meets the stocking guidelines. Pine and red maple will be expected to be additional components.

Other Comment:

Proposed Start Date: 10/01/2027



| S t a n d | Treatment Name | Acres | Stand CoverType | Size Density | Stand Age | BA Range | Treatment Type | Treatment Method | Cover Type Objective | Age Structure | Approval Status |
|-----------------------|-------------------|-------|------------------------------|-----------------|--------------|-----------------|-------------------|---------------------|---------------------------------|------------------|-------------------------|
| 72 | 53046072-NF | 1.5 | 310 - Herbaceous Openland | Nonstocked | | Unspec ified | NonForestMgt | Other - Specify | 310 - Herbaceous Openland | | Draft Field Boundary |

Habitat Cut: No

Site Condition:

Prescription Mow, plant, brush, burn, or herbicide to maintain opening. Plant hard and/or soft mast.

Specs:

Next Step

Treatments:

Acceptable

Regen:

Other

Comment:

Proposed Start Date: 10/01/2017

**Total Treatment
Acreage Proposed: 92.8**

Report 4 – Site Conditions

Pigeon River Country Mgt. Unit

Compartment: 46

Greg Rekowski : Examiner

Year of Entry: 2018

Availability for Management

| | | | |
|-------|-----------|-----------------------|---------------|
| Total | Acres | Acres Avail | Acres |
| Acres | Available | <i>With Condition</i> | Not Available |

Dominant Site Conditions

| | Total Acres | Acres Available | Acres <i>With Condition</i> | Acres Not Available | Dominant Site Conditions | | | | | | | | | |
|-------|----------------|--------------------|--------------------------------|------------------------|--------------------------|----|----|-------|----|----|----|----|----|--|
| | | | | | 5B | 5C | 2F | 2G | 2H | 3A | 3L | 5A | 5E | |
| 143 | 137 | 0 | 6 | Aspen | | 0 | 6 | | | | | | 0 | |
| 355 | 0 | 0 | 355 | Cedar | | | | 355 | | | | | | |
| 46 | 45 | 0 | 1 | Herbaceous Openland | | | 0 | | 1 | | | | | |
| 6 | 6 | 0 | 0 | Jack Pine | | | | | | | | | | |
| 786 | 5 | 0 | 781 | Lowland Conifers | | | | 781 | | | | | | |
| 37 | 10 | 0 | 27 | Lowland Shrub | | | | 27 | | | | | | |
| 21 | 0 | 0 | 21 | Lowland Spruce/Fir | | | | 21 | | | | | | |
| 140 | 15 | 6 | 119 | Mixed Upland Deciduous | | 6 | | | 32 | 20 | 66 | | 1 | |
| 79 | 27 | 49 | 3 | Natural Mixed Pines | 10 | 39 | | | 3 | | | 0 | | |
| 7 | 7 | 0 | 0 | Oak | | | | | | | | | | |
| 32 | 11 | 21 | 0 | Red Pine | 21 | | | | | | | | | |
| 2 | 0 | 0 | 2 | Tamarack | | | | 2 | | | | | | |
| 4 | 0 | 0 | 4 | Upland Conifers | | | | | 4 | | | | | |
| 49 | 8 | 29 | 12 | Upland Mixed Forest | 12 | 16 | 12 | | | 0 | | | | |
| 9 | 9 | 0 | 0 | Urban | | | | | | | | | | |
| 34 | 26 | 0 | 8 | White Pine | | | | | 8 | | | | | |
| 1,749 | 306 | 105 | 1,339 | Total Forested Acres | 43 | 61 | 19 | 1,185 | 49 | 20 | 66 | 0 | 1 | |
| | 17% | 6% | 77% | Relative Percent | | | | | | | | | | |

**Due to limitations in the current Site Conditions Analysis tool, all nonforested acres are considered available. Future development will enable analysis of nonforested types.*

| Site No. | Dominant Site Cond Availability | Dominant Site Condition | Acres | Other Site Condition | Other Site Condition | Other Site Condition | Other Site Condition |
|------------------|---------------------------------|-------------------------|-------|----------------------|----------------------|----------------------|----------------------|
| 1 | Unavailable | 5E: Long-Term Retention | 1 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: | | | | | | | |
| 2 | Unavailable | 2F: Too steep | 3 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: | | | | | | | |

Report 4 – Site Conditions

Pigeon River Country Mgt. Unit
 Greg Rekowski : Examiner

Compartment: 46
 Year of Entry: 2018

| | | | | | | | |
|-----------|-------------|--|----|-------------|-------------|-------------|-------------|
| 3 | Available | 5B: Maintain for regeneration purposes | 10 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: | | | | | | | |
| 4 | Unavailable | 2F: Too steep | 4 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: | | | | | | | |
| 5 | Available | 5C: Delay treatment for age/size class diversity or exceptional site quality | 6 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: | | | | | | | |
| 6 | Available | 5C: Delay treatment for age/size class diversity or exceptional site quality | 16 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: | | | | | | | |
| 7 | Unavailable | 2F: Too steep | 8 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: | | | | | | | |
| 8 | Available | 5B: Maintain for regeneration purposes | 12 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: | | | | | | | |

Report 4 – Site Conditions

Pigeon River Country Mgt. Unit
Greg Rekowski : Examiner

Compartment: 46
Year of Entry: 2018

| | | | | | | | |
|------------------|--------------------|---|----|-------------|-------------|-------------|-------------|
| 9 | Available | 5B: Maintain for regeneration purposes | 21 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: | | | | | | | |
| 10 | Available | 5C: Delay treatment for age/size class diversity or exceptional site quality | 10 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: | | | | | | | |
| 11 | Unavailable | 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area) | 49 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: | | | | | | | |
| 12 | Available | 5C: Delay treatment for age/size class diversity or exceptional site quality | 9 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: | | | | | | | |
| 13 | Available | 5C: Delay treatment for age/size class diversity or exceptional site quality | 6 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: | | | | | | | |
| 14 | Available | 5C: Delay treatment for age/size class diversity or exceptional site quality | 14 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: | | | | | | | |

Report 4 – Site Conditions

Pigeon River Country Mgt. Unit

Compartment: 46

Greg Rekowski : Examiner

Year of Entry: 2018

| | | | | | | | |
|--|--------------------|--|-------|-------------|-------------|-------------|-------------|
| 15 | Unavailable | 2G: Too wet (sensitive soils, does not include access issues) | 1,185 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: | | | | | | | |
| 16 | Unavailable | 2F: Too steep | 4 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: | | | | | | | |
| 17 | Unavailable | 3L: Other wildlife concerns | 61 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: Awaiting MNFI field survey. Stand is part of the Tin Shanty DHA. | | | | | | | |
| 18 | Unavailable | 3A: Potential old growth / biodiversity | 20 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: No treatment due to the large component of hemlock. This stand is also part of the Tin Shanty DHA. | | | | | | | |
| 19 | Unavailable | 3L: Other wildlife concerns | 5 | Unspecified | Unspecified | Unspecified | Unspecified |
| Comments: Awaiting MNFI field survey. Stand is part of the Tin Shanty DHA. | | | | | | | |

Mgt. Unit

Compartment: #Type!

Year of Entry:



Report 5 – PROPOSED SPECIAL CONSERVATION AREA* (SCA) DETAILS

* This is a partial list of SCAs for this compartment. Not included are those areas identified under other Department initiatives (Natural Rivers, Deer Wintering Areas, etc.). Those will be identified in separate, future map and report products.

| SCA Name | SCA Category | Detail Type | Recommendation | Acres |
|----------|--------------|-------------|----------------|-------|
|----------|--------------|-------------|----------------|-------|

Comments



Report 6 – EXISTING SPECIAL CONSERVATION AREA DETAILS

* This is a list of SCA's for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to the Special Conservation Area Map for locations of the below listed Conservation Areas.

ERA = Ecological Reference Area
 HCVA = High Conservation Value Area
 SCA = Special Conservation Area

| Conservation Area | Type | Description |
|-------------------|-------------------|--|
| SCA | Cold Water Lake | A coldwater lake has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species to persist from year to year. Suitable conditions for coldwater fishes may occur in Michigan lakes if they are relatively deep, have substantial groundwater inflows, or are located in colder (northern) areas of the state. Such lakes are established by Director's action and designated as trout resources by Fisheries Order 200. |
| SCA | Cold Water Stream | A coldwater stream has temperature and dissolved oxygen conditions that allow naturally-reproduced or stocked trout populations and those of other coldwater fish species (e.g., slimy sculpin) to persist from year to year. Coldwater streams in Michigan typically provide these conditions due to substantial contributions of groundwater to their stream flows. Such streams are established by Director's action and designated as trout resources by Fisheries Order 210. |
| SCA | Riparian Area | A transitional area between aquatic and terrestrial ecosystems in which the terrestrial ecosystem influences the aquatic ecosystem and vice-versa. Because of the unique conditions adjacent to lakes, streams and open water wetlands, riparian areas harbor a high diversity of plants and wildlife. Riparian communities are ecologically and socially significant in their effects on water quality and quantity, as well as aesthetics, habitat, bank stability, timber production, and their contribution to overall biodiversity. |



| | Level 4 Cover Type | Size Density | Acres | Stand Age | BA Range | General Comments: |
|---|----------------------------|----------------------|-------|--------------|-------------|---|
| 1 | 6120 - Lowland Cedar | Poletimber Medium | 246.7 | 115 | 81-110 | Poor quality stand with a lot of declining cedar, quite a bit of it is already dead. Green's Creek flows north through the middle of the stand. The few decent pockets of remaining cedar seem to be concentrated closer to the creek. The scattered cedar blowdown along with the thick alder and fir understory makes this a difficult stand to navigate through. Black spruce and tamarack become more dominant in the far NE corner. Did not visit that half of the stand west of the creek, from the imagery it appears very poor quality with a decrease in stocking as well. Average ba/acre from 11 plots = 105 square feet. Trace of white pine, balsam poplar, red maple, and quaking aspen. Too wet and poor quality to ever consider management here. |
| 3 | 42290 - Natural Mixed Pine | Sawtimber Well | 9.3 | 109 | 81-110 | Thin stand that is on a transition to the Black River swamp. May have been thinned at one point as the large pine overstory is somewhat variable. Spruce and fir has primarily filled in the more open spots. Trace of cedar along the west edge. Average ba/acre from 8 plots = 106 square feet. Scattered clumps of 2-3 small posts in the north half. These are labeled "MW" which must be monitoring wells for the adjacent processing facility. |
| 4 | 42200 - Natural White Pine | Sawtimber Well | 1.8 | 90 | 141-170 | XL sized white pine more common in the north half. Stocking increases with more suppressed white pine poletimber in the south half. Pocket of white pine regen along the road. Trace of jack pine and paper birch. Average ba/acre from 3 plots = 157 square feet. |
| 6 | 42200 - Natural White Pine | Sawtimber Well | 2.3 | 90 | 111-140 | West finger of stand is behind a fence that encloses the adjacent gas processing facility. Road running east-west splits the stand. Average ba/acre from 3 plots = 137 square feet. |
| 7 | 4130 - Aspen | Poletimber Well | 21.0 | 37 | 81-110 | Stand cut in 1980 by Champion. Aspen regenerated quite well except for a 2-3 acre area in the northern part which is now quite open except for some white pine filling in. Diameters tend to vary a little bit with a few pockets of smaller stems. Rolling terrain. Trace of red oak and red pine. Average ba/acre from 8 plots = 100 square feet. Stand will be ready to harvest in ten years. |
| 8 | 42290 - Natural Mixed Pine | Sawtimber Well | 6.8 | 90 | 171-200 | Stand does not appear that it has been thinned before. A lot of smaller, suppressed white pine poletimber that are the same age as the larger trees in the stand. Oak is primarily in the central portion of the stand. Average ba/acre from 8 plots = 171 square feet. |
| 9 | 4319 - Mixed Upland Forest | Sapling Medium | 7.6 | 24 | Immature | Previous OI stand comments below are still applicable. Only aspen is in the far western end. Browse pressure is pretty severe in this stand, there really isn't an understory at all. I think literally every red maple stem has been damaged by elk. The white pine in the denser pockets is decent quality but the remainder is somewhat open grown. Scattered open areas due to browse which are now degraded with mostly moss and bracken fern. OPIC - FMD: 2006 THIS STAND WAS TYPED AS AN A1 STAND BUT THERE REALLY ISNT NOT ANY ASPEN IN IT. WHITE PINE HAS SEEDED IN AND THERE IS SOME RED MAPLE STUMP SPROUTS IN THE STAND. THERE IS A LITTLE PATCH OF A3 ON THE VERY WESTERN TIP OF THE STAND. |



| | Level 4 Cover Type | Size Density | Acres | Stand Age | BA Range | General Comments: |
|----|--|---------------------|-------|--------------|-------------|---|
| 11 | 4199 - Other Mixed Upland Deciduous | Poletimber Well | 61.1 | 86 | 111-140 | -Very diverse stand that doesn't appear to ever have been thinned before. Varying quality and size throughout. Oak, pine, and hemlock display the best growth, not the best site quality for other hardwoods like maple and basswood. Possibly a two-aged stand? The oak and pine may have come in first followed by the maple, beech, and hemlock. Hemlock appears healthy and patches are mostly in the northern and southeastern parts of the stand. Average ba/acre = 115 sq. ft. -Rolling terrain with a few steep slopes. -Very heavy use by deer and elk which has resulted in a barren understory in most spots, even leatherwood is being browsed. |
| 12 | 42201 - Natural White Pine, Mixed Deciduous | Poletimber Poor | 4.8 | 27 | 1-50 | Stand was cut as part of Oilfield Pines (#53-005-89-01), bought and cut by Gary Haskill. Poor stocking, previous notes browsing eliminated the aspen and hardwoods besides red maple. Most of the red maple stems have been damaged by elk. White pine open grown for the most part, a little better quality in the denser pockets. |
| 13 | 42200 - Natural White Pine | Sawtimber Well | 16.7 | 79 | 141-170 | Stand was thinned in 1991 as part of Oilfield Pines sale, bought and cut by Gary Haskill. A lot of nice stems, albeit rather small due to the high density. Average ba/acre from 5 plots = 164 square feet. |
| 14 | 42210 - Natural Red Pine | Sawtimber Well | 10.7 | 109 | 111-140 | A stand of very large pine along the Black River swamp edge. Species removal harvest as part of 1989 timber sale Oilfield Pines, bought and cut by Gary Haskill. As a result, stocking is somewhat variable, especially in the far southern end of the stand which has a much lower BA. Pockets of red pine regeneration along the swamp edge in the north part of the stand. Aspen regen is mostly at the south end. Red maple understory is heavily browsed. Average ba/acre from 10 plots = 127 square feet. Manage this stand on a long rotation due to the swamp and travel influence. |
| 15 | 4310 - Pine, Oak Mix | Sawtimber Medium | 12.2 | 90 | 51-80 | Stand was cut in 1991 as part of the Oilfield Pines sale, bought and cut by Gary Haskill. Sale notes said a thinning but looks like most everything was cut except for pine and oak. Some smaller aspen, maple, and birch scattered around. Series of relatively steep ridges and valleys. All appear operable. Stocking increases in the far north end, this part may not have been cut. Average ba/acre from 4 plots = 75 square feet. |
| 16 | 4191 - Mixed Upland Deciduous with Conifer | Sawtimber Well | 19.8 | 86 | 141-170 | 2006 THERE ARE MANY PATCHES OF HEMLOCK 2 TO 6 INCHES IN DIA. THE HEMLOCK LOOKS PRETTY GOOD, THE PORKIES HAVENT KILLED THE TOPS YET. 2015 The hemlock is still healthy. Diverse stand with a variety of diameters. Some areas heavy to sawtimber, while hemlock patches are primarily poletimber. Barren understory. Very heavy use by deer and elk at time of inventory. Trace of red pine and sugar maple. Average ba/acre = 145 sq. ft. This stand is part of the Tin Shanty DHA and no management will take place within this stand. |
| 17 | 4191 - Mixed Upland Deciduous with Conifer | Poletimber Well | 4.7 | 86 | 111-140 | Diverse stand that hasn't been managed before. Average ba/acre = 137 sq ft. Stand is part of the Tin Shanty DHA. |



| | Level 4 Cover Type | Size Density | Acres | Stand Age | BA Range | General Comments: |
|----|--|-------------------|-------|--------------|-------------|--|
| 18 | 4199 - Other Mixed Upland Deciduous | Poletimber Medium | 4.9 | 37 | 51-80 | BTA mostly in one clone at the NE end. Remainder of stand is primarily red maple stump sprouts, most of which have been damaged by elk. There is a nice representation of oak stump sprouts in the northern part of the stand. A few scattered residual oak and pine. Average ba/acre from 5 plots = 72 square feet. |
| 19 | 4123 - Red Oak | Sawtimber Well | 1.1 | 86 | 81-110 | Stand lies on top of a ridgeline. The oak is not very high quality. Average ba/acre from 3 plots = 90 square feet. |
| 20 | 4191 - Mixed Upland Deciduous with Conifer | Sawtimber Well | 10.7 | 87 | 111-140 | Mixed stand with a few steep ridges and valleys as you head northeast. Oak quality declines sharply depending on aspect and steepness of the slopes. Aspen is most prevalent along the east and west edges and much of it is showing signs of decay. Scattered pockets of natural pine throughout with a good proportion of small, overtopped red pine. Average ba/acre from 8 plots = 112 square feet. Browse will be an issue if a harvest is prescribed here. |
| 21 | 6123 - Lowland Fir | Sapling Medium | 2.6 | 35 | Immature | Cut by Wildlife Division in the winter of 1981-82 to feed deer. Stand has not regenerated all that well and has a lot of alder, although there is a nice representation of paper birch. The fir almost appears stagnant in spots. The aspen doesn't look very healthy either as there are several that are dead. Didn't see any black spruce during the walkthrough but I'm guessing there is some in here. |
| 22 | 42260 - Natural Pine, Mixed Deciduous | Sawtimber Well | 5.5 | 87 | 141-170 | Stand thinned in 2013 as part of 7 Stand Mix, #53-006-10-01, bought by Tulgetska. Aspen is primarily in the southern part of the stand. Northern half is dominated by nice pine. Thin middle part of the stand lies on a steep slope and was not included in the thinning. Trace of hemlock. Average ba/acre from 5 plots = 144 square feet. |
| 23 | 4130 - Aspen | Poletimber Well | 1.0 | 43 | 81-110 | Diameters vary quite a bit on the aspen. Trace of paper birch. Average ba/acre from 3 plots = 83 square feet. |
| 24 | 4130 - Aspen | Sapling Medium | 4.9 | 4 | Immature | Stand cut in 2013 by Tulgetska, 7 Stand Mix, #53-006-10-01, roundwood job. Small retention area left directly adjacent to the well pad. The stand regenerated well initially but the browse is heavy in spots, seems to increase as you get farther away from the well pad. Red maple stump sprouts have been nailed the hardest but the bigtooth is being wiped out in a few spots as well. Residual oak averages 10 square feet per acre. |
| 25 | 4130 - Aspen | Poletimber Well | 24.8 | 37 | 1-50 | Stand clearcut in 1980 by Champion. Regenerated well. Rolling terrain. Trace of red pine. Average ba/acre = 89 square feet. Diameters are still small, consider harvesting in ten years. |
| 26 | 4311 - Pine, Aspen Mix | Poletimber Well | 16.3 | 82 | 141-170 | Densely stocked stand with not much of an understory. Roughly even mix of aspen and pine. The patches of pine are of natural origin and are nice quality. Rolling terrain with a few steep slopes at the southern end. Average ba/acre from 7 plots = 163 square feet. Manage for pine and oak, let the aspen senesce. |
| 27 | 4123 - Red Oak | Sawtimber Medium | 3.8 | 86 | 51-80 | Stand had everything but oak removed in Oil Hills Aspen sale (53-018-88-01). Red oak is pretty nice quality. Average ba/acre from 3 plots = 63 square feet. |



| | Level 4 Cover Type | Size Density | Acres | Stand Age | BA Range | General Comments: |
|----|--|----------------------|-------|--------------|-------------|---|
| 28 | 4130 - Aspen | Poletimber Medium | 20.7 | 25 | Immature | Stand cut as part of Oil Hills Aspen sale, cut by K&R Logging. The aspen is just reaching merchantability while the red maple is lagging behind. Sporadic stocking with several open areas, old OI notes indicate browse pressure was high. Browse pressure is still high as many witch hazel stems are badly damaged. Oak residual is most prevalent in the SW portion of the stand. Rolling terrain. Trace of paper birch, sugar maple, and red pine. |
| 29 | 4123 - Red Oak | Sawtimber Poor | 2.2 | 96 | 1-50 | Stand had everything except oak cut as part of the Oil Hills Aspen sale (#53-018-88-01). |
| 30 | 4319 - Mixed Upland Forest | Poletimber Well | 12.7 | 69 | 111-140 | For the most part this stand lies on steep side slopes or ridge tops. Variable mix of species with some scattered clumps of pure pine. Trace of hemlock and beech. Average ba/acre from 11 plots = 138 square feet. |
| 31 | 42290 - Natural Mixed Pine | Sawtimber Well | 4.1 | 90 | 111-140 | Aspen component primarily near the road and also NE part of the stand. Variable diameters on the pine. The red pine is a bit younger than the largest white pine. Average ba/acre from 4 plots = 120 square feet. Thin in ten years. |
| 32 | 4130 - Aspen | Sapling Well | 5.5 | 4 | Immature | Stand cut in 2013 by Tulgetska, 7 Stand Mix, #53-006-10-01, roundwood job. Aspen is regenerating very well. Hawthorn as well as red oak saplings were protected. Trace of white pine and quaking aspen residual trees. |
| 33 | 4133 - Aspen, Mixed Pine | Poletimber Well | 4.8 | 43 | 81-110 | Clump of larger QA at the north end that is poor quality. Trace of black spruce. Average ba/acre from 4 plots = 88 square feet. |
| 34 | 4199 - Other Mixed Upland Deciduous | Poletimber Well | 6.4 | 85 | 81-110 | North half of stand is well stocked with nice hardwoods. South half of stand becomes less well-stocked and starts to transition to more of an oak-red maple type. Large aspen mixed in, quite a bit on the east edge that should be maintained. Average ba/acre from 3 plots = 90 square feet. |
| 35 | 4131 - Aspen, Oak | Poletimber Well | 23.7 | 44 | 81-110 | Old OI notes indicate all aspen down to 4 inches was cut out of this stand in the early 1970's, likely some red maple was cut as well. Scattered large aspen are mixed in throughout. Site quality increases as you head north and east, with hardwoods increasing in these areas. Pine is mostly concentrated on the steep slopes and ridge tops. Oak is present throughout, although there are a few areas of almost pure oak and little aspen. Average ba/acre from 12 plots = 104 square feet. Browsing will be an issue here if cut, similar stands to the east have been cut and have had most species suffer significant browse. |



| Stand | Level 4 Cover Type | Size Density | Acres | Stand Age | BA Range | General Comments: |
|-------|----------------------------|-------------------|-------|-----------|----------|---|
| 36 | 4130 - Aspen | Sapling Medium | 4.2 | 4 | Immature | Stand cut in 2013 by Tulgetska, 7 Stand Mix, #53-006-10-01, roundwood job. Not all of the original treatment boundary was cut due to steep slopes, those portions are now a part of stand 35. Heavy browse on the regeneration, not sure how much is actually alive. Will call it an A2 for now but wouldn't doubt that all of the aspen is eliminated in the coming years, similar to what happened to the adjacent stand to the east. If cherry doesn't take over, red maple and white pine will likely be the resulting mix. Oak residual is variable but averages about 10 square feet per acre. OPIC - FMD: 2006 THIS STAND HAS SOME FAIRLY STEEP SLOPES. TO NOT CUT THE OAK. IF THIS STAND IS CUT THE ASPEN MAY HAVE TROUBLE REGENERATING DUE TO BROWSING. |
| 37 | 4130 - Aspen | Sapling Medium | 3.1 | 4 | Immature | Stand cut in 2013 by Tulgetska, 7 Stand Mix, #53-006-10-01, roundwood job. At this point the stand has not regenerated very well along the swamp edge. |
| 38 | 42290 - Natural Mixed Pine | Sawtimber Well | 1.3 | 90 | 111-140 | Aspen is old and poor-quality. Trace of black spruce and balsam fir. Average ba/acre from 3 plots = 113 square feet. Stand will serve well as a visual buffer when the adjacent aspen stand is cut. No management. |
| 39 | 4130 - Aspen | Poletimber Well | 9.1 | 43 | 81-110 | Stand lies on a moderate west-facing slope. Diameters tend to vary on the aspen with some areas where the stems are quite small. There is also a small component of larger aspen that must have been left from the previous harvest. Most of these older stems are very poor quality with a lot of rot. A small amount of very large white and red pine in the stand. Trace of jack pine, balsam fir, black spruce, and paper birch. Average ba/acre from 5 plots = 110 square feet. |
| 40 | 6120 - Lowland Cedar | Poletimber Medium | 108.1 | 115 | 51-80 | Poor-quality cedar that is in decline with many areas showing a significant amount of cedar mortality. The fir understory is thick in these spots. Southeastern corner is really the only place where the cedar is healthy and of decent quality. Average ba/acre from 8 plots = 80 square feet. |
| 41 | 42290 - Natural Mixed Pine | Sawtimber Well | 15.0 | 90 | 81-110 | Highly variable stand. Ranges from well-stocked sawtimber to well-stocked poletimber to well-stocked saplings with a scattered supercanopy. Previous records show a jack pine and aspen species removal harvest in 1973, which is the reason for the variability. Average ba/acre from 7 plots = 84 square feet. Trace of paper birch, balsam fir, white spruce, and red oak. Let the smaller pine continue to grow and then thin when the basal area reaches the appropriate level. |
| 42 | 4130 - Aspen | Sapling Well | 1.1 | 4 | Immature | Stand cut in 2013 by Tulgetska, 7 Stand Mix, #53-006-10-01, roundwood job. Average height about 3-3.5 feet. |
| 43 | 6122 - Black Spruce | Poletimber Poor | 7.6 | 83 | 1-50 | |



| Level 4 Cover Type | Size Density | Acres | Stand Age | BA Range | General Comments: |
|--|---------------------|-------|--------------|-------------|---|
| 6129 - Mixed Coniferous Lowland Forest | Sapling Medium | 7.7 | 41 | 1-50 | This is possibly an unproductive stand. The cedar is small and stunted, and is not new ingrowth. The tamarack and spruce regeneration appears to be decent quality. Age an estimate because of the small stems. Green's Creek flows through the stand. Cedar mortality at the north end as it looks like there is some flooding ongoing in this area. |
| 4191 - Mixed Upland Deciduous with Conifer | Sawtimber Well | 10.9 | 99 | 81-110 | Stand lies on a transition to the surrounding swamp and has a few wet areas intermixed. Quite a unique stand with some very large red maple mixed in. Hemlock at the northwestern end of the stand is short and stubby with a lot of porcupine damage to the tops. Trace of quaking aspen and spruce. Average ba/acre from 10 plots = 105 square feet. |
| 4191 - Mixed Upland Deciduous with Conifer | Poletimber Well | 21.5 | 47 | 81-110 | Stand cut by Wildlife Division in winter of 1969-70. There has been quite a bit of balsam fir mortality and blowdown. Aspen seems to be more prevalent along the north line. A few very large red maple scattered here and there. Trace of white spruce, ironwood, and hemlock. Average ba/acre from 10 plots = 85 square feet. |
| 42200 - Natural White Pine | Sawtimber Well | 8.4 | 119 | 141-170 | Very nice natural white pine stand with a component of hemlock and upland cedar. Stand sits on a gradual slope which goes down to the swamp. Limited understory for the most part. Trace of paper birch, quaking aspen, and black spruce. Average ba/acre from 6 plots = 157 square feet. |
| 429 - Mixed Upland Conifers | Sawtimber Medium | 2.1 | 119 | 51-80 | Stand lies on a thin ridge. May have been cut at the same time as the larger stand to the west as there are many open areas throughout the stand. Some very large white pine. Cedar mostly along the edges. Average ba/acre from 5 plots = 64 square feet. |
| 42380 - Non Pine Upland Conifer, Mixed Deciduous | Sawtimber Well | 2.1 | 119 | 111-140 | Stand is upland but is not elevated much higher than the surrounding swamp. A few very large red maple. Average ba/acre from 4 plots = 125 square feet. |
| 42210 - Natural Red Pine | Sawtimber Medium | 20.9 | 89 | 81-110 | Stand last cut in Lost Cabin Spruce sale (#53-039-88-01), bought by Michael Bruning. The sale was a species removal harvest with some marked red and white pine as well. Most of the volume was spruce, fir, red maple, and aspen. Residual stocking is highly variable as a result of the species removal. Highest stocking is in the central part of the stand. Stocking is low at both the north and south ends, with aspen regeneration being mostly in the south end. The north end has pockets of nice white pine and black spruce poletimber which are filling in the gaps. Diameters tend to vary on the red and white pine, with some large XL-sized trees mixed in. Trace of balsam fir and paper birch. Average ba/acre from 8 plots = 86 square feet. |
| 42220 - Natural Jack Pine | Poletimber Well | 6.0 | 43 | 51-80 | Some scattered log-size red and white pine. Quite a few jack pine have broken tops and are now dead. Trace of balsam fir and black spruce. Average ba/acre from 4 plots = 78 square feet. |
| 42290 - Natural Mixed Pine | Poletimber Well | 10.0 | 43 | 111-140 | Stand had an aspen and jack pine species removal harvest in the past. The residual supercanopy is mostly large red pine with a little white pine and averages about 30 square feet. The remainder of the stand is poletimber. Trace of black spruce and balsam fir. Average ba/acre from 6 plots = 122 square feet. |



| | Level 4 Cover Type | Size Density | Acres | Stand Age | BA Range | General Comments: |
|----|--|------------------|-------|--------------|-------------|--|
| 54 | 42290 - Natural Mixed Pine | Sawtimber Well | 3.0 | 119 | 141-170 | Impressive natural pine stand sitting on an upland island within the Black River swamp. Almost appears as if it has been cut before due to some open areas as well as the lack of diversity in the overstory. Average ba/acre from 5 plots = 170 square feet. |
| 55 | 6127 - Lowland Pine | Sawtimber Poor | 4.8 | 109 | 51-80 | Stand cut in January-February of 2016 as part of Super Spruce (#53-014-13-01), bought by Precision. Roundwood job, 99% of the volume cut was black spruce with only a few paper birch, red maple, and balsam fir mixed in. Wet stand especially as you get closer to the west line. Operators did a great job of staying on top of slash. A few small areas where they sunk in a little but no occurrences of rutting. Average ba/acre of the pine residual from 6 plots equals 53 square feet. |
| 56 | 42290 - Natural Mixed Pine | Sawtimber Medium | 10.4 | 83 | 111-140 | Difficult stand to describe. South half of stand has a moderately stocked supercanopy of large white pine and red pine. The north half is lower stocked and dominated more by supercanopy red and jack pine. Open areas throughout the stand have filled in with mostly white pine, and have reached poletimber size in areas with less of a supercanopy. Sporadic aspen and red maple poke up above the white pine understory. Average ba/acre from 8 plots = 114 square feet. |
| 57 | 4130 - Aspen | Poletimber Well | 15.2 | 36 | 51-80 | Stand regenerated well following harvest in 1981. The quaking aspen is just reaching merchantability and is quite a bit smaller than the bigtooth. A few small pockets of pure white pine along the edges. Trace of red pine and paper birch. Heavy browse on the viburnum understory. Average ba/acre from 7 plots = 77 square feet. |
| 58 | 42290 - Natural Mixed Pine | Sawtimber Well | 13.9 | 109 | 111-140 | Nice natural pine stand with some big diameter trees. Aspen and jack pine are mostly in the north finger of the stand. Wet ground starts to intermix in the far western portion. Trace of balsam fir and paper birch. Average ba/acre from 7 plots = 114 square feet. |
| 60 | 6122 - Black Spruce | Poletimber Poor | 13.2 | 84 | 51-80 | The spruce is actually pretty nice quality but stocking is very low. Thick alder understory. Average ba/acre from 4 plots = 58 square feet. |
| 61 | 6129 - Mixed Coniferous Lowland Forest | Poletimber Well | 771.1 | 115 | 111-140 | Large swamp conifer stand of varying size and quality. In general, the south half of the stand has most of the tamarack which is pretty nice quality. This could almost be typed out as a separate tamarack stand in the future. Cedar and black spruce become much more prevalent in the north half of the stand. Trace of quaking aspen, red maple, and balsam poplar. For the most part this stand is relatively easy to navigate through. The only exception would be the area adjacent to and surrounding the largest upland island stand. This area has a lot of stunted and blown down cedar along with a thick fir and alder understory. Commercial management opportunities do not exist for this stand with the exception of maybe a few small 1-2 acre strips along the eastern edge. The ground is wet and hummocky for the majority, and Green's Creek flows through the north half. Snowshoe hare tracks were abundant during field inventory as were deer, coyote, and elk sign. Majority of the stand appears in good health. A few areas of localized cedar decline but not significant. Eastern larch beetle was observed killing some tamarack a few years prior but at this time it has not progressed to be a serious problem. Average ba/acre from 35 plots = 132 square feet. |



| Stand | Level 4 Cover Type | Size Density | Acres | Stand Age | BA Range | General Comments: |
|-------|--------------------|----------------|-------|-----------|----------|---|
| 62 | 6121 - Tamarack | Sapling Medium | 2.0 | 31 | Immature | Green's Creek flows through the stand. Old beaver activity and cedar blowdown opened this stand up and it is now filling in with primarily tamarack. There is a small pocket of exotic phragmites in the north part of the stand. At this time it hasn't expanded much into surrounding areas and would be very manageable to treat with herbicide. |
| 64 | 4130 - Aspen | Sapling Well | 1.6 | 4 | Immature | Stand cut in 2013 by Tulgetska, 7 Stand Mix, #53-006-10-01, roundwood job. Stand has regenerated well and is an A3 at this point however elk are browsing the bigtooth aspen quite heavily, so a lower stocked stand is probable next entry. |
| 65 | 4130 - Aspen | Sapling Poor | 1.1 | 4 | Immature | Stand cut in 2013 by Tulgetska, 7 Stand Mix, #53-006-10-01, roundwood job. The sale boundary connected with stand 69 to the south but they couldn't make it up a steep slope which now separates the two stand boundaries. Heavy elk browse on everything that is sprouting back. Likely that in 10 years this will be a nonforested stand. |
| 69 | 4130 - Aspen | Sapling Medium | 1.8 | 4 | Immature | Stand cut in 2013 by Tulgetska, 7 Stand Mix, #53-006-10-01, roundwood job. Aspen has sprouted back well but is being browsed hard, difficult to tell how much is alive at this point. Red maple stump sprouts have mostly been eliminated. Good chance of being nonforested in ten years. Some moderate slopes in this stand. |



| Stand | Cover Type | Acres | Managed Site | General Comments: |
|-------|----------------------------|-------|--------------|---|
| 2 | 6220 - Alder/willow | 26.5 | No | Did not visit this stand but from the imagery it appears to be an alder jungle. |
| 5 | 110 - Low Intensity Urban | 8.9 | No | OIL AND GAS PRODUCTION FACILITIES. |
| 10 | 310 - Herbaceous Openland | 0.5 | No | Old landing. |
| 44 | 310 - Herbaceous Openland | 0.5 | No | Looks like this may have been an old landing. |
| 59 | 6229 - Mixed lowland shrub | 10.1 | | Stand cut in January-February of 2016 as part of Super Spruce (#53-014-13-01), bought by Precision. Roundwood job, 99% of the volume cut was black spruce with only a few paper birch, red maple, and balsam fir mixed in. Wet stand especially as you get closer to the west line. Operators did a good job of staying on top of slash. A few areas where they sunk in but only one area of rutting which exceeded the guidance, located directly along the west line in the north half. Some scattered white pine and red pine closer to the east boundary. |
| 70 | 310 - Herbaceous Openland | 3.5 | No | Active well site. |
| 71 | 310 - Herbaceous Openland | 4.9 | No | Active well site. |
| 72 | 310 - Herbaceous Openland | 1.5 | No | Old well site. |
| 73 | 310 - Herbaceous Openland | 2.5 | No | WELL SITE |
| 74 | 310 - Herbaceous Openland | 3.6 | No | WELL SITE |
| 75 | 310 - Herbaceous Openland | 0.9 | No | Open area on a steep west-facing slope. Old notes say this was possibly an old ski hill? Excellent view from the top of the slope. Can see a large portion of the Black River swamp as well as the old Tyrolian Hills ski area to the west. Being used frequently by snowmobilers as a hill climb. |
| 76 | 310 - Herbaceous Openland | 27.1 | No | Tin Shanty and Lost Cabin Roads. Pipeline is a part of this stand as well. It starts along the west side of Tin Shanty Road and then moves to the east side on Lost Cabin Road. |
| 77 | 310 - Herbaceous Openland | 0.8 | No | Old notes indicate this opening was created in 1980 by Wildlife Division and treated with the herbicide Amdon. |